# Undergraduate Catalog 2009-2010 

Full-Time Day Programs

| THE UNIVERSITY | 1 |
| :---: | :---: |
| Admission | 2 |
| Admission Policy and Entrance Requirements | 2 |
| Merit Scholarships | 5 |
| Information for Entering Students | 7 |
| New Student Orientation | 7 |
| Parent and Family Services | 7 |
| Orientation for International Students | 7 |
| Residence Life | 7 |
| Health Requirements-University Health and Counseling Services (UHCS) | 8 |
| English Language Center | 8 |
| Accommodations for Students with Disabilities | 8 |
| College Expenses | 9 |
| Financial Aid | 9 |
| Student/Parent Loans | 9 |
| Bill Payment | 9 |
| Tuition, Room, Board, and Fees per Semester 2009-2010 Academic Year | 11 |
| Academic Policies and Procedures | 14 |
| Academic Integrity Policy | 14 |
| Accommodations for Students with Disabilities | 14 |
| Attendance Requirements | 14 |
| Class Schedules | 15 |
| Grading System | 16 |
| Examinations | 18 |
| Academic Progression Standards | 19 |
| Graduation Requirements | 19 |
| Registration Procedures | 20 |
| Personal Information | 22 |
| Family Educational Rights and Privacy Act (FERPA) | 22 |
| Student Right-to-Know Act | 23 |
| University Withdrawal | 23 |
| Leave of Absence | 23 |
| ACADEMIC PROGRAMS AND CURRICULUM GUIDE | 25 |
| NU Core | 26 |
| Writing-Intensive Courses | 27 |
| Experiential Learning | 27 |
| Cooperative Education | 28 |
| Research and Creative Activity | 29 |

Service-Learning ..... 29
Global Experience ..... 29
World Languages Center ..... 30
University Honors Program ..... 31
Premedical and Other Preprofessional
Health Career Preparation ..... 32
Prelaw Preparation ..... 33
ROTC, Military Officers’ Training Program ..... 33
About Sample Curricula ..... 34
Undergraduate Course Numbering System ..... 35
Undergraduate Degrees ..... 35
Majors and Concentrations ..... 36
Combined Bachelor’s/Master’s Programs ..... 38
Minors ..... 38
College of Arts and Sciences ..... 40
Interdisciplinary Studies ..... 41
Interdisciplinary Minors ..... 43
Interdisciplinary Facilities ..... 52
Special Programs ..... 52
African-American Studies ..... 53
American Sign Language-English Interpreting ..... 55
Architecture ..... 58
Art + Design ..... 60
Asian Studies ..... 69
Behavioral Neuroscience ..... 71
Biochemistry ..... 73
Biology ..... 77
Chemistry and Chemical Biology ..... 84
Cinema Studies ..... 87
Communication Studies ..... 97
Creative Industries ..... 102
Earth and Environmental Sciences ..... 105
Economics ..... 109
Education ..... 113
English ..... 115
Environmental Studies ..... 118
General Studies Program ..... 126
History ..... 129
Human Services ..... 134
International Affairs ..... 142
Jewish Studies ..... 154
Journalism ..... 157
Languages, Literatures, and Cultures ..... 158
Linguistics ..... 162
Mathematics ..... 166
Music ..... 170
Philosophy and Religion ..... 174
Physics ..... 179
Political Science ..... 185
Psychology ..... 193
Sociology and Anthropology ..... 198
Theatre ..... 201
Bouvé College of Health Sciences ..... 205
Health Sciences ..... 207
Physical Therapy ..... 209
Speech-Language Pathology and Audiology ..... 212
School of Nursing ..... 216
School of Pharmacy ..... 219
Toxicology ..... 222
College of Business Administration ..... 224
Minor ..... 225
Accounting ..... 226
Entrepreneurship and Innovation ..... 227
Finance and Insurance ..... 229
International Business and Strategy ..... 231
Management ..... 244
Management Information Systems ..... 246
Marketing ..... 248
Supply Chain Management ..... 249
School of Technological Entrepreneurship ..... 251
Additional Programs ..... 252
College of Computer and Information Science ..... 253
Computer Science ..... 253
Information Science ..... 257
Dual Majors ..... 259
College of Criminal Justice ..... 276
College of Engineering ..... 280
Interdisciplinary Minor ..... 281
Chemical Engineering ..... 282
Civil and Environmental Engineering ..... 285
Electrical and Computer Engineering ..... 287
Mechanical and Industrial Engineering ..... 296
APPENDIX ..... 303
Governing Boards and Officers of Northeastern ..... 304
Administrative Organization ..... 307
Faculty ..... 308
Online Resources ..... 328

The University

## Admission

## ADMISSION POLICY AND ENTRANCE REQUIREMENTS

Admission to Northeastern is selective, and the complexity of the admission process is not one that can be defined through a formula. At Northeastern, we are shaping a community of students who bring a diversity of experiences and interests. Each year, about 2,800 new freshmen and 550 new transfer students enroll in September and an additional 500 new students enroll each January. In building a diverse and talented incoming class, the Admissions Committee seeks to enroll students who have been successful academically and who have been actively involved in school activities and in their communities.

The typical student admitted to Northeastern has been extremely successful in a challenging course load. When considering applicants for freshman admission, the committee considers whether the applicant's high school transcript reflects the various academic opportunities offered such as honors, advanced placement, international baccalaureate, or college-level courses. Northeastern also seeks to enroll students who have positively contributed to their school and larger community.

When reviewing transfer students, the committee takes into consideration such factors as the candidate's academic transcript; letters of recommendation; résumé; essay; academic preparation for major of choice; and, in certain cases, high school GPA and standardized test scores. Transfer applicants are encouraged to submit a completed application and all supporting materials well before the deadline, as the number of students admitted to each program is limited.

Northeastern accepts the Common Application and a required Northeastern Supplement. Students may apply online at www.commonapp.org. The application and the supplement must be submitted simultaneously.

## Deadlines and Decisions

Interested freshman and transfer applicants may apply for entrance into either the fall or spring semester.* Visit
www.admissions.neu.edu for application deadlines.

- Northeastern has an Early Action Program for freshman applicants who consider Northeastern among their top choices. Early action decisions are released by December 31.
- Northeastern also offers a regular decision program for freshman applicants, and decisions are released by April 1.
* Throughout this catalog, the word semester refers both to full semesters and to half semesters, except in cases where there is a cost or timeline difference. In such cases, the terms "full semester" and "half semester" are used.
- Decisions for all transfer applicants and for spring freshman applicants are released on a rolling basis, depending on space availability.


## Required Materials

The committee will begin to evaluate an applicant's candidacy for admission only when all application credentials have been received. We strongly encourage students to submit their credentials in a single complete package. Please ensure that all appropriate identification information is on every piece of your application package (name, date of birth, and NU ID).

## FRESHMAN APPLICANTS

Each year, more than 35,000 students apply for a space in the freshman class. As the vast majority of applicants are academically eligible for admission, the committee has the responsibility of selecting applicants for admission that it believes will contribute to Northeastern's diverse and vibrant community. The committee is particularly interested in applicants who have challenged themselves academically, are highly motivated, have a strong work ethic, or who have demonstrated excellence in leadership, creativity, diversity, engagement, global perspective, and resiliency. We encourage applicants to spend time to thoughtfully prepare their application in order to make sure their strengths and qualities resonate with the Admission Committee. In addition to the Common Application and required Northeastern Supplement, prospective freshmen must submit the following:

- Official secondary school transcripts. Midyear senior grades should be sent when available. Admitted students planning to enroll are required to send final transcripts prior to matriculation. General Equivalency Diploma (GED) recipients should provide their official score reports as well as any official secondary school transcripts.
- Students who received schooling at home should submit an academic portfolio consistent with their state guidelines and provide a list of all textbooks used. Home-schooled applicants must also provide proof they will have met by the end of May of the year of graduation all requirements for an official high school diploma and submit an official final transcript, a General Equivalency Diploma (GED), or a certificate of completion from their local school district or state board of education by the end of July of the year of matriculation. Home-schooled students must submit either the American College Testing Program (ACT) with Writing exam or the College Board's SAT (with Writing) and two SAT subject tests, including mathematics and an additional subject test of their choice. Students who are applying for science-based majors should take
a science subject test. Applicants to the College of Engineering must take the physics subject test.
- List of all current or in-progress high school classes or college courses (if applicable).
- Official transcripts for any college-level course work taken while a secondary school student.
- Portfolio. The portfolio is required for music technology and SMFA applicants and recommended for other BFA-in-studioart applicants. Please see "Admission Requirements for Art + Design" and "Admission Requirements for Music" on page 5 for more information.)
- Written recommendations from their secondary school guidance counselor and a teacher.
- Results of the American College Testing Program (ACT) with Writing exam or the College Board's SAT (with Writing). Northeastern's CEEB College Code is 3667 and 1880 for ACT.
- Essays.
- Résumés/activities list. Activities should be listed in order of importance to the applicant. Please provide a brief description of each, and highlight any leadership positions held.
- Application fee.


## TRANSFER APPLICANTS

Our most successful candidates for transfer admission typically have a minimum grade-point average of 3.000 . Students may transfer up to 60 semester hours of credit from a two-year college, or up to 80 semester hours from a four-year college, or a combination of the two types of colleges. If you have been admitted to the College of Business Administration and your college or university is not AACSB accredited, the maximum number of credits that you can transfer to NU is 60.

In addition to the application for admission, prospective transfer students must submit the following:

- Official transcripts for all college courses at all colleges and universities attended. There is no exception to this requirement. All academic credit with a C average or better will be considered for transfer credit. Course work taken more than ten years ago will not be granted transfer credit.
- All final transcripts.
- A copy of an official course registration form for any inprogress course work.
- The College Official's Report, found on the Common Application Web site, www.commonapp.org.
- Two recommendations from academic advisors, professors, or employers, on official letterhead and submitted in sealed envelopes.
- Official high school transcripts or an official GED score report and SAT/ACT scores (only if the transfer applicant has completed fewer than 24 semester hours of college-level academic work). If a GED score report is submitted, the incomplete high school transcript must also be submitted.
- Portfolio. The portfolio is required for music technology and SMFA applicants and recommended for other BFA-in-studioart applicants. Please see "Admission Requirements for Art +

Design" and "Admission Requirements for Music" on page 5 for more information.)

- Midterm grades for the current term can be substituted for the high school transcript and SAT/ACT requirement if the applicant has completed at least one full semester of academic work.

All transfer-credit documents should be received prior to matriculation and must be received within one semester of matriculation. These documents include, but are not limited to, Advanced Placement, International Baccalaureate, and National Education exam scores and official transcripts from colleges and universities. These documents should be submitted whether or not you wish to receive transfer credit from this work. Transfer credit will not be granted for work prior to matriculation if the official credential is received after the completion of the first semester. Transfer credit will not be granted if the equivalent course is completed with a grade at Northeastern. Transfer applicants who have earned credits at an international university must have a recognized agency evaluate their transcripts and translate them into English.

## INTERNATIONAL APPLICANTS

Northeastern accepts the Common Application and a required Northeastern Supplement. Students may apply online at www.commonapp.org.

International student applications are reviewed considering their performance in their particular academic environments. As a result, SAT or ACT scores are not required for international applicants. However, applicants who attend a high school in the United States, who will graduate from an international school that follows a U.S. high school curriculum (i.e., offers Advanced Placement courses and exams), or who are student-athletes who must meet NCAA eligibility requirements are required to submit test scores.

In order to maintain lawful student status in the United States, international students must be very mindful of the rules and regulations that govern their nonimmigrant visa classification. Numerous U.S. federal mandates and regulations implementing the Student and Exchange Visitor Information System (SEVIS) make it especially important for students in the " $F$ " (student) and "J" (exchange visitor) categories to consult regularly with an international student advisor at the International Student and Scholar Institute (ISSI) before taking any action that might affect their immigration status and educational endeavors in the United States.

International students must register as full-time students, on time (within the appropriate registration period) during the regular academic year. In addition, international students must not begin or resume any type of employment without first obtaining proper employment authorization or verification from the ISSI. Any exceptions from full-time registration requirements must be preapproved by the ISSI in accordance with specified federal regulations.

## Requirements for Applicants Whose Primary Language Is Not English

Students whose native language is not English are required to take one of the following tests: Test of English as a Foreign Language (TOEFL) (passing score of 213 on the computer-based test; 550 on the paper-based test; 79-80 on the Internet-based test) or the International English Language Testing System (IELTS) (passing score of 6.5). This requirement is waived if your SAT critical reading and writing scores/ACT equivalent are at least 500 . It is your responsibility to ensure that your test scores are either submitted directly to Northeastern by the testing service or are included on your official high school transcript.

## College, Major, and Length of Program Selection

Applicants to Northeastern University apply to one of our six undergraduate colleges.

Although an "undeclared" or "open option" category has been made available in most colleges, we encourage you to select a major that reflects your current academic interests and aspirations. Northeastern offers advisory programs for students interested in preprofessional programs, including medical, dental, law, and veterinary. Transfer students may not apply with "undeclared/open option" as their academic interest.

The five-year model allows students to maximize experiential learning opportunities, including research, study abroad, and our signature co-op program. Most majors offer a four-year option, with at least one experiential learning option. You are not required to make a decision on the four-year option upon entry. Some curricular options (architecture; clinical doctorate programs in health sciences; combined bachelor's/master's programs) require more than five years' study to complete. In general, these have been structured so that students are considered to be undergraduates for their first five years, and students then transition to graduate status within the program contingent on successful completion of the undergraduate component. See the detailed curricula in this catalog for more information.

Students who begin in the January term may not follow the same curricula sequence as those who start in the fall. Your schedule of courses may be affected based upon your semester of matriculation. Summer courses may be required to help students complete their degree requirements in a reasonable amount of time.

## Early Admission

Early admission provides an opportunity for students to enroll at Northeastern before the expected year of their high school graduation. Before enrolling at the University, all applicants for early admission must have completed all units required for high school graduation (including senior English) or must have earned the General Equivalency Diploma (GED). In addition to the required materials for freshman applicants, early admission applicants must provide written endorsement from the school principal, guidance counselor, and parents; exceptional records and standardized test scores; and a 200-word personal statement
outlining his or her educational and/or career aspirations. The endorsements should speak directly to the applicants' academic readiness and emotional maturity for college. An interview may also be required.

## Advanced Credit

You may enter the University with advanced credit on the basis of your test scores on certain specific examinations (listed below) or on successful completion of accredited college-level courses that you took before you enrolled at Northeastern. For consideration, students should submit transcripts or test results before matriculation and must submit official score reports for credit evaluation within one semester of matriculation.

Northeastern currently awards advanced credit for the
following examinations:

- Advanced Placement
- British System GCE A-Level Examination
- German Abitur
- French Baccalaureate
- International Baccalaureate
- Swiss Federal Maturita Diploma


## ADVANCED PLACEMENT EVALUATIONS

The University awards credit for test scores of 4 and 5. Please visit www.northeastern.edu/admissions for an up-to-date AP listing.

Credit awarded: 4-10 semester hours or up to two courses per exam (refer to AP listing). AP scores must be received by Northeastern prior to matriculating in order to receive credit.

## BRITISH SYSTEM GCE A-LEVEL EXAMINATION

The University awards credit for A-level courses with final exam grades of C or better. Students who have completed only O levels are not eligible for advanced credit.

## GERMAN ABITUR

The University awards credit for intensive subjects with scores of 7 or higher on a 15 -point scale and 4 or higher on a 6 -point scale only for subjects that required a written exam.

## FRENCH BACCALAUREATE

The University awards credit for any series A-E on the Baccalaureate de l'Enseignement du Second Degré with a coefficient of 4 or above $(4,5,6)$ and a score of 10 or better on a 20-point scale.

## INTERNATIONAL BACCALAUREATE

The University generally awards credit for exam scores of 5, 6, or 7 on higher-level exams only. Please visit the Admissions Web site at www.northeastern.edu/admissions for an up-to-date IB grid.

## SWISS FEDERAL MATURITA DIPLOMA

The University awards credit for a final score of 4 or higher on a 6 -point scale or 6 or higher on a 10-point scale.

## Admission Requirements for Art + Design

## ADMISSION WITH A PORTFOLIO

Applicants interested in being admitted directly into the Department of Art + Design programs are strongly encouraged to submit a portfolio for review. For updated guidelines for admission and for creating a portfolio, go to the Department of Art + Design Web site, www.art.neu.edu.

Applicants for the studio art major, a joint program of Northeastern University and the School of the Museum of Fine Arts, Boston, are required to submit a portfolio and should also go to www.art.neu.edu for admissions and portfolio guidelines.

## PORTFOLIO GUIDELINES

Send fifteen images of original artwork. The portfolio may include work in a variety of media; no particular subject matter or style is required. Rather, students should select work that best shows their personal style, creativity, and commitment to innovation. Check the Department of Art + Design Web site, www.art.neu.edu, for more information.

## ADMISSION WITHOUT A PORTFOLIO

Applicants who fulfill the requirements for admission, but do not have a portfolio of work, may be accepted into the department as undeclared majors. At the end of the freshman year, any student who wants to advance further in the department must submit a portfolio of work that is completed primarily at Northeastern in the foundation studio courses.

The portfolio review committee is made up of three or more faculty members. Students present between ten and fifteen pieces of work. Students who do not pass will be given clear directives to assist them in reapplying. Students cannot take upper-level courses until they pass their portfolio review. Upon successful completion, students will gain full status and access to courses within their major.

## Admission Requirements for Music

## MUSIC TECHNOLOGY

For candidates applying for admission into the music technology concentration, a portfolio is required and will be reviewed by a committee of faculty. The portfolio must include:

- Three representative examples of your creative work in a form that best represents the project, including lead sheets of original songs or printed scores of original compositions or arrangements; digital format, which might include MIDI or digital audio files on floppy disk, data CD, or Zip disks (PC and Mac formats are acceptable); or URLs for Web sites that include original music or sounds. Audio recordings of compositions are highly recommended (audio CD or cassette preferred). Videotape recordings of live performances of your music are also acceptable. (Supply a self-addressed, stamped envelope if you wish to have your materials returned.)
- A short statement explaining your involvement in the creation of the work. The statement should note whether you are the sole creator or a collaborator; the composer, arranger, or remixer; and whether you are performing the work on the recording(s).
- A separate, typed one-page statement of your musical background, influences, and goals.

Should music technology faculty determine that they would like additional information, they may arrange an interview with the applicant. Visit www.musictech.neu.edu for more information.

## MUSIC PERFORMANCE

Once enrolled, students in any music concentration may also audition to pursue a minor in musical performance. This program is highly competitive and therefore requires evaluation by the Department of Music. To schedule an audition contact Arthur Rishi, events coordinator, at 617.373 .2671 or via e-mail at a.rishi@neu.edu. Auditions are typically scheduled during a student's first semester at Northeastern. For specific questions regarding the program or audition requirements, contact Professor Joshua Jacobson at j.jacobson@neu.edu or 617.373.3635.

## MERIT SCHOLARSHIPS

Scholarships reward academic excellence. Northeastern has established several highly selective scholarship programs to reward and recognize outstanding academic achievement. You must apply by the regular deadline to be considered for these scholarships. No additional applications are necessary, as consideration for merit scholarships is automatic when the application is completed by the deadline, except for Phi Theta Kappa Scholarships (see below).

## Trustee Scholarships

Award: Our most prestigious award includes full tuition, campus room and board (for academic semesters, based on double occupancy). Recipients who maintain normal progress toward a degree, with the minimum grade-point average, may renew the award for the full four- or five-year program.

Eligibility: The top 1 percent of freshman applicants may be considered for this award.

## National Merit Finalists Scholarships

Award: Up to a full-tuition scholarship for admitted freshman applicants who are designated National Merit/National Achievement Finalists.

Eligibility: Admitted freshman applicants who are designated National Merit/National Achievement Finalists by the National Merit Scholarship Corporation (NMSC).

## Dean's, Excellence, and Achievement Awards

Awards: Partial tuition scholarships ranging from \$5,000 to
$\$ 16,000$. Recipients who maintain normal progress toward a degree, with a minimum grade-point average of 3.000, may renew these awards.

Eligibility: The top 25 percent of freshman applicants may be considered for these highly selective awards.

## Phi Theta Kappa Scholarships (Transfer Students Only)

Award: \$5,000 grant. Recipients who maintain normal progress toward a degree, with a minimum grade-point average of 3.000, may renew the award.

Eligibility: Applicants for fall transfer admission who have earned a 3.500 grade-point average in 32 semester hours or equivalent quarter hours or units of college-level course work. For eligibility, you must be a U.S. citizen or a permanent resident enrolling directly from a two-year institution. A letter of recommendation from a Phi Theta Kappa advisor is required. The deadline to apply for this award is April 1.

Please contact the Office of Undergraduate Admissions if you have any questions about the application process.

Office of Undergraduate Admissions
150 Richards Hall
Northeastern University
360 Huntington Avenue
Boston, MA 02115-5000 USA
admissions@neu.edu (e-mail)
www.northeastern.edu/admissions (Web site)
617.373 .2200 (voice)
617.373 .8780 (fax)

Credentials not being submitted online (transcripts, recommendations, and test scores) should be mailed to the following address:

Northeastern University
Application Processing Center
P.O. Box 120

Randolph, MA 02368-9998 USA
Portfolios; application fees; application fee waiver requests (being sent separate from the application); a Declaration and Certification of Finances form (DCF); and FedEx, UPS, or Priority Mail packages must be mailed to the following address:

Office of Undergraduate Admissions
150 Richards Hall
Northeastern University
360 Huntington Avenue
Boston, MA 02115-5000 USA
For more information, please consult the Admissions Web site, www.northeastern.edu/admissions.

## Information for Entering Students

## NEW STUDENT ORIENTATION

It is mandatory for all undergraduate students entering the University to participate in an orientation program. Students beginning in September will participate in the summer. Those starting in January will participate in the winter. Students will meet their classmates and learn their way around campus and Boston. They'll also prepare for the start of the academic year by exploring their college and major, meeting with an academic advisor, learning more about co-op, and experiencing what makes Northeastern unique. They also register for classes and get their Husky ID. Registration information will be posted on the Admitted Student Portal for those who have paid their tuition deposit. Contact the Office of New Student Orientation and Programs toll-free at 800.696.6516 or visit www.northeastern.edu/orientation for more information.

## PARENT AND FAMILY SERVICES

The Office of Parent Programs and Services serves as a resource to parents and families of Northeastern University students. Through active participation in internal and external University events and programs, this office outlines its services and programs and begins to develop a relationship with the NU parent and family population. Ongoing newsletters, online chats, parent message board, and programs keep parents and family members connected to the University and informed of deadlines, events, and services. The office also maintains the Parent Portal, which is a resource for news, dates, and important information related to the student's experience. With permission of the student, parents may create an account by visiting the myNEU Web Portal (www.myneu.neu.edu). During the academic year, parents and family members are invited to contact the office as they seek information or assistance in addressing concerns related to their student's enrollment.

Contact the Office of Parent Programs toll-free at 800.696.6516, or visit www.northeastern.edu/parents for more information.

## ORIENTATION FOR INTERNATIONAL STUDENTS

The International Student \& Scholar Institute (ISSI) organizes more than three months of orientation and acculturation programming throughout the year for newly arrived international students and U.S. citizens from abroad. ISSI orientation provides a unique forum for intercultural interaction and learning, with
activities that include an "airport welcome," cultural enrichment programming, information sessions, immigration advising, regional excursions, and educational seminars that bring a crosscultural focus to topics such as academic success, student life, and the dynamic of diversity. The ISSI orientation program begins prior to the start of the fall and spring semesters, comprising several weeks of activities that provide international students (and others who have lived abroad) an opportunity to gain familiarity with Northeastern in a cross-cultural context while also serving to facilitate the formation of friendships across cultures.

International students should plan to arrive several days before the start of the semester as outlined in their ISSI orientation schedule. All matriculating international students will have access to a preliminary schedule from the ISSI prior to their arrival in the United States. Immediately prior to the start of the fall semester, the Office of New Student Orientation conducts a two-day "Academic Orientation" session as part of the ISSI orientation program, which parallels-and substitutes for-the mandatory orientation program held earlier in the summer for domestic (U.S.) students.

For further details on the ISSI orientation program, and for other information pertinent to international students, please contact:

The International Student \& Scholar Institute (ISSI)<br>405 Ell Hall<br>Northeastern University<br>360 Huntington Avenue<br>Boston, MA 02115<br>www.northeastern.edu/issi (Web site)<br>617.373.2310 (voice)

## RESIDENCE LIFE

The Department of Residence Life strives to create a community for our residents by planning programs and activities that help students get to know others on their floor and in their residence hall. We also provide services that support our residents in accomplishing their academic and personal goals. Residence Life staff are trained in counseling, crisis intervention, conflict resolution, as well as interpersonal communications in order to assist our students to achieve their aspirations.

Each hall is supervised by a residence director and resident assistants, individuals who maintain close contact with students and who serve as administrators for the buildings.

The University offers a variety of housing options tied to specific programs of study. These Living Learning Communities offer students a supportive, achievement-oriented environment
with opportunities for friendship around common interests as well as continued learning and sharing outside the classroom. Living Learning Communities commonly feature tutoring, advising, and study groups as well as unique programs designed to promote student growth and advancement. The University also recognizes that some students prefer to live in an environment of shared values and choices, which our lifestyle and cultural options housing also provides.

HEALTH REQUIREMENTS—UNIVERSITY HEALTH AND COUNSELING SERVICES (UHCS)

A Health Report from University Health and Counseling Services (UHCS) is included with confirmation of the new student orientation session date. It must be completed and returned by the stated deadline. The required record of immunity section is necessary for compliance with the Massachusetts College Immunization Law. Failure to meet the requirement will prevent future course registration. Additionally, further documentation of immunity is mandatory for students in Bouvé College of Health Sciences.

Visit www.uhcs.neu.edu to access the Health Report online.

## ENGLISH LANGUAGE CENTER

The English Language Center (ELC) conducts English language testing for incoming international students. This testing is mandatory for undergraduate conditionally admitted students. The testing takes about three hours.

From the testing, four scores are derived: global, reading/grammar, listening, and writing. Based on these scores, conditionally admitted students may be (1) cleared for full-time academic studies, (2) required to take English as a second language classes only, or (3) assigned a hybrid schedule of both academic and ESL classes. At the end of each academic session, all students are retested, and conditionally admitted students' schedules are adjusted according to their improvement.

The Office of New Student Orientation automatically assigns conditionally admitted students a test day and time. However, any department may refer students for testing. Students must come on time on designated test days with a completed referral form in hand. Students without referral forms will not be tested. Referral forms and a schedule of test dates are available to departments by request through the ELC. There is a test fee of $\$ 50$.

The ELC also offers a variety of language support courses for students who need assistance. Advisors and departments are encouraged to contact the ELC with any questions regarding testing or language support for international students.

For further information about the English Language Center, visit the ELC Web site at www.northeastern.edu/cps/elc or contact the ELC office, 206 Ell Hall, 617.373.2455.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

The University encourages students who seek an accommodation for a documented disability or disabilities that are substantially limiting, including "invisible" disabilities such as chronic diseases or learning disabilities, to register with the Disability Resource Center (DRC, 20 Dodge Hall, 617.373.2675, www.access-disability-deaf.neu.edu/). Students should register as soon as possible upon arriving on campus. The information provided will be kept confidential except that relevant faculty and staff will be informed if they are expected to provide accommodations. The University is committed to providing reasonable accommodations for students with documented disabilities that are substantially limiting. When services are approved, the DRC will provide the student with a letter of introduction to faculty, which indicates the service(s)/accommodation(s) for which the student has been approved. To initiate the recognition that service(s)/accommodation(s) have been approved and are being provided, students are encouraged to furnish a copy of the letter of introduction to their instructor(s) before the start of classes and no later than the second week of the term.

## College Expenses

Northeastern University is eager to assist you in developing a plan for financing a Northeastern education. Through a variety of options-financial aid, Northeastern's Monthly Payment Plan, supplemental loans, and your own resources-a plan can be designed that will make your education costs affordable. Visit the Office of Student Financial Services on the Web at www.financialaid.neu.edu or call 617.373.3190.

## FINANCIAL AID

For many families, financial aid is a major element in making Northeastern University affordable. The Office of Student Financial Services provides a full range of options that help undergraduate and graduate students establish a comprehensive plan to finance their educations. To take advantage of Northeastern's financial aid programs, freshmen and transfer students must submit the FAFSA and CSS PROFILE forms. Returning students must submit the FAFSA every year. Meeting priority filing dates will allow the review of your eligibility for all available financial aid programs. For information regarding your financial aid application, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, and select "My Financial Aid Status."

## Satisfactory Academic Progress

Starting at the end of the spring semester of sophomore year, student GPAs are reviewed annually to evaluate eligibility for aid. A 2.000 GPA is required to retain eligibility. Students must also meet certain quantitative requirements. Completed credits are reviewed as a percentage of attempted credits after each academic year.

## Return of Title IV Aid

Northeastern is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60 percent of a term. Recalculation is based on the percentage of earned aid using the Federal Return of Title IV funds formula. Federal regulations require students to obtain at least an A, B, C, $\mathrm{D}, \mathrm{S}$, or F in at least one course for the term; students who receive all unsuccessful grades for a term (NE, W, I, *, U) will be considered unofficially withdrawn from the term. For unofficial withdrawals, the withdrawal date used for aid recalculation is the midpoint of the term.

## Northeastern's Monthly Payment Plan

All full-time students have the option to enroll in Northeastern's Monthly Payment Plan. This plan allows students and families to spread their annual tuition costs (less the financial aid) over nine, ten, or eleven months. Visit www.northeastern.edu/registrar/ billing.html for additional information.

## STUDENT/PARENT LOANS

There are a number of attractive educational loan programs available to assist you in covering your expenses over and above any financial aid that may be awarded to you from Student Financial Services. Most private lenders have credit and income requirements that must be met before being approved for these programs. Additional information regarding private loans is available on our Web site at www.financialaid.neu.edu/loans/supplemental.php. When researching the loan and lender that best meet your needs, make sure you take into consideration the interest rate, origination, disbursement, or repayment fees and the quality of customer service.

## BILL PAYMENT

Full payment of tuition, residence hall fees, and other related charges are due prior to the start of the term as specified on the original bill, or if the due date is "Upon Receipt," please pay within fifteen days to avoid a late charge. A past-due balance may result in prevention of registration or grade release. For details on payment methods, and E-bill, visit www.northeastern.edu/ registrar/billing.html.

Discrepancies in your bill should be addressed in writing to the Office of Student Accounts. Include your name, account number, dollar amount in question, date of invoice, and any other information you believe is relevant. Address the correspondence to: Office of Student Accounts, 120 Hayden Hall, Northeastern University, 360 Huntington Ave., Boston, MA 02115 or e-mail studentaccounts@neu.edu. If there is a billing problem, pay the undisputed portion of the bill to avoid responsibility for any late fees.

Tuition bills are generated electronically and are available via the myNEU Web Portal (www.myneu.neu.edu). Paper bills are not generated. Visit www.northeastern.edu/registrar/billing-ebill.html for additional information.

## Overloads/Reduced Loads

Undergraduate day tuition is charged on a flat per-term basis that includes the cost of each student's normal academic curriculum requirements for that term.

Undergraduate full-time student adjustments for reduced loads are made only when the petition is approved by the academic department and the Office of the Registrar. Adjustments will then be made if the course load falls below 12 credits during full semesters and 6 credits during summer half sessions (calculated at the per-credit-hour rate). To receive an adjustment, the Undergraduate Petition to Reduce Load must be submitted prior to the start of the term. No rebate or credit is granted when a student voluntarily drops a course.

Undergraduate full-time day student adjustments for course work greater than the prescribed curriculum for the term is calculated at the per-credit-hour rate. Students taking more than 8 credits (summer half session) or 16 credits (full semester) will be charged the per-credit-hour rate.

Undergraduate full-time day students registered for co-op and taking a class will be billed at the per-credit-hour rate.

Visit www.northeastern.edu/registrar/billing-tuition.html for a full listing of tuition rates. Also see "Overload Policy" and "Reduced Load Policies" on page 20.

Undergraduate full-time day students may register for one additional music ensemble course from the following list without added charge:
MUSC 1904 Chorus
MUSC 1905 Band
MUSC 1906 Orchestra
MUSC 1907 Wind Ensemble
MUSC 1911 Jazz Ensemble
MUSC 1912 Rock Ensemble
MUSC 1913 Blues/Rock Ensemble
MUSC 1914 Create Your Own Music
MUSC 1915 Chamber Ensembles
MUSC 1916 Electronic Music Ensemble
MUSC 1917 Jazz/Blues Choir

## Delinquent Balances

In cases of student default on tuition payments, the student is liable for the outstanding tuition as well as for all reasonable collection costs and any legal fees incurred by the University during the collection process. Accounts may be subject to monthly interest charges. Transcripts and other academic records will not be released until all financial obligations to the University have been met.

## Refunds on Credit Balances

To submit a request for a refund on a credit balance because of overpayment, the Student Refund Request must be submitted through the student's myNEU Web Portal (www.myneu.neu.edu) located under the "Self-Service" tab.

Visit www.northeastern.edu/registrar/billing.html\#over for additional tips on expediting the processing of your request.

Note: In the event a credit card was used to pay any student charges, credit balances in the student's account will first be applied to the credit card used, with any remaining balance paid to the student, unless otherwise indicated.

## Refund for Withdrawal-General Information

Tuition credits are granted based on the date of the official withdrawal processed by the Office of the Registrar. Nonattendance does not constitute official withdrawal. Credit policies vary according to the duration of the course. Typical tuition adjustments are made according to the schedules shown below.

The first week of class is the week containing the "classes begin" date listed in the online academic calendar at www.northeastern.edu/registrar/calendars.html.

Payment options and credit policies may vary for courses that follow a schedule different from the regular full or half-semester courses. If you are unsure about a course you are taking, contact the Office of Student Accounts.

Transcripts and other academic records will not be released until all financial obligations to the University have been met. All rates are subject to revision at the discretion of Northeastern University's Board of Trustees.

For information regarding policies that affect eligibility for federal grants and loans upon your withdrawal or adjustment to course enrollment, please visit www.financialaid.neu.edu.

## Refunds for Course Withdrawals

Undergraduate day students should refer to "Overload Policy" and "Reduced Load Policies" on page 20 for information on adjustments for withdrawing from individual course(s). For withdrawals from a course after the third week of the term, please contact studentaccounts@neu.edu.

## Refunds for Complete Withdrawal from the University

Full semesters

| Official withdrawal during the first week | $100 \%$ refund |
| :--- | :--- |
| Official withdrawal during the second week | $100 \%$ refund |
| Official withdrawal during the third week | $100 \%$ refund |
| Official withdrawal during the fourth week | $60 \%$ refund |
| Official withdrawal during the fifth week | $40 \%$ refund |
| Official withdrawal after the fifth week | no refund |

Summer half semesters

| Official withdrawal during the first week | $100 \%$ refund |
| :--- | :--- |
| Official withdrawal during the second week | $100 \%$ refund |
| Official withdrawal during the third week | $50 \%$ refund |
| Official withdrawal during the fourth week | $25 \%$ refund |
| Official withdrawal after the fourth week | no refund |

## Emergency Leaves

When a student is diagnosed with a major medical illness or injury, psychiatric illness, or has a family emergency after the start of the term that significantly interferes with his or her ability to attend classes and complete requirements, the student may consider an emergency leave of absence. For possible financial implications of any emergency leave, please see "Leave of Absence" on page 23.

## Disability Resource Center Adjustments

Students who are registered with Northeastern’s Disability Resource Center are eligible to petition the center for tuition adjustments directly related to their documented disability. Students who drop below 12 credit hours may be affected by the loss of full-time-student status. Further information is available from the Disability Resource Center.

## TUITION, ROOM, BOARD, AND FEES PER SEMESTER 2009-2010 ACADEMIC YEAR

Full-time freshmen spend two semesters in classes and summer on vacation. Annual costs for upperclass students participating in coop vary depending on their pattern of attendance. See "Pattern of Attendance." The number of semesters a transfer student spends in school depends on the curriculum of the student's college. You are advised to verify your curriculum with your student services office so that you may plan accordingly.

## Total Costs

The total costs for students living in our residence halls and enrolled in the fifteen-meal plan are as follows:

| Tuition and fees | Per full <br> semester | Per summer <br> half semester |
| :--- | :---: | :---: |
| Tuition | $\$ 17,475$ | $\$ 8,738$ |
| Student center fee | 70 | 35 |
| Student activities fee | $116^{*}$ |  |
| Campus recreation fee | 46 | 23 |
| Room, board, and fees per semester  <br> Residence activity fee 32 |  |  |
| Housing | range from | 16 |
|  | $2,380-6,090^{* *}$ | approximately <br> $1 / 2$ of semester <br> rate** |
| Fifteen-meal plan*** | 2,690 | 1,345 |

> * Annual fee
> $* *$ Rates vary depending on occupancy and assignment. Visit www.housing.neu.edu for a detailed list of housing rates.
> *** See Meal Plan section for additional meal plan options.

Undergraduate day students who take a graduate course as part of their undergraduate program will be charged the same rates that apply to undergraduate credits. (See "Overload Policy" and "Reduced Load Policies" on page 20.)

## Patterns of Attendance

To plan for tuition and fees better, please refer to the following tables showing sample class/cooperative education patterns of attendance. For specifics of particular majors, please consult the program plan for that major.

## Sample five-year pattern with three six-month co-ops:

| Year | Fall | Spring | Summer 1 | Summer 2 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Class | Class | Vacation | Vacation |
| 2 | Class | Class | Vacation | Co-op |
| 3 | Co-op | Class | Class | Co-op |
| 4 | Co-op | Class | Class | Co-op |
| 5 | Co-op | Class |  |  |

Sample four-year pattern with one six-month co-op:

| Year | Fall | Spring | Summer 1 | Summer 2 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Class | Class | Vacation | Vacation |
| 2 | Class | Class | Class | Co-op |
| 3 | Co-op | Class | Class | Vacation |
| 4 | Class | Class |  |  |

## Four-year pattern with no co-op:

| Year | Fall | Spring | Summer 1 | Summer 2 |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Class | Class | Vacation | Vacation |
| 2 | Class | Class | Vacation | Vacation |
| 3 | Class | Class | Vacation | Vacation |
| 4 | Class | Class |  |  |

## Please note that not all of the above patterns are available in all academic programs and that some programs follow patterns different from those shown above.

In addition to the expenses itemized above, families should plan on the normal costs of living that students incur for transportation, books, and personal expenses. These vary depending upon such things as lifestyle and distance from home, but for the purpose of approximating a student budget, the University estimates these items at $\$ 4,050$ per year.

Tuition rates, room and board charges, and fees are subject to revision by the board of trustees at any time.

## Fees Required of All Students

The following fees are required of all students:

## APPLICATION FEE

This nonrefundable fee of $\$ 75$ must accompany an application for admission.

## TUITION DEPOSIT

A nonrefundable tuition deposit of $\$ 200$, which is applicable toward the first semester's tuition, is due by May 1 from all freshman students entering in September. Students entering at other times of the year and transfer students entering in September
should note the required deposit due date on their letter of admission.

## SUMMER ORIENTATION FEES

A nonrefundable fee of $\$ 350$ will be charged to the student's account upon registration for the mandatory orientation session. The fee for new freshman and transfer students includes program costs, housing, meals, Welcome Week activities, and the opportunity to have two guests participate in the Parent Program, which runs simultaneously with the Student Program. There are additional costs for additional guests and for all guests desiring on-campus housing. Note: Students who enroll at Northeastern without attending their mandatory orientation session will be billed $\$ 50$ in addition to the above program costs.

## STUDENT FEES

Students pay a student center fee of $\$ 70$ per in-school full semester or $\$ 35$ per in-school summer half semester to support the Curry Student Center and an annual student activities fee of \$116 to support student clubs.

## CAMPUS RECREATION FEE

All undergraduate students at Northeastern University will be assessed a campus recreation fee of $\$ 46$ per in-school full semester or $\$ 23$ per in-school summer half semester. This fee covers admission to home athletic events, use of the Marino Fitness Center, the SquashBusters athletic facility, and the Cabot Gym (fitness and pool). This fee will also support the future construction of athletic fields and facilities.

## HUSKY CARD (PHOTO-IDENTIFICATION CARD)

This card is issued to new full-time students at orientation and registration. Students must have a properly validated card to use most University facilities. A replacement card costs $\$ 15$.

## NORTHEASTERN UNIVERSITY STUDENT HEALTH PLAN (NUSHP)

Since September 1989, Massachusetts law (Massachusetts General Laws, Chapter 15A, Section 18) has required every full-time and part-time student enrolled in a Massachusetts institution of higher learning to participate in a qualifying student health insurance program (QSHIP) or in a health benefit plan with comparable coverage. Students who have comparable health plan coverage may waive NUSHP by completing a waiver on the myNEU Web Portal (www.myneu.neu.edu) by the designated deadline date each academic year. Visit www.northeastern.edu/registrar/billingnushp.html for deadlines and additional information.

## Additional Fees

Other fees may include the following:

## HOUSING APPLICATION/DEPOSIT

New students seeking on-campus housing must submit a nonrefundable $\$ 400$ deposit along with a completed housing application form to complete the housing application process. The upperclass housing deposit is $\$ 200$ for each semester or $\$ 100$ for each summer session.

## RESIDENCE HALL ACTIVITIES FEE

All students living in the residence hall system pay a full-semester $\$ 32$ fee or half-semester $\$ 16$ fee for activities sponsored by the Residence Student Association.

## LATE FEES

All accounts not paid in full by the indicated due dates will be subject to a monthly late fee.

## INTERNATIONAL STUDENT FEE

A one-time fee of $\$ 250$ is charged to new undergraduate international students, payable after their admission to Northeastern University. The fee supports services available at the International Student and Scholar Institute. This charge will appear on the second or third billing statement of the student's first term.

## Room and Board

## ROOM RATES PER SEMESTER, 2009-2010

Please visit the Residential Life Web site, www.housing.neu.edu, for a complete display of room rates and residence halls.

## TERMINATION FEE

AND ROOM RATE ADJUSTMENT POLICY
The University provides on-campus and leased accommodations that are assigned each semester. Students are billed at the beginning of each semester and are obligated to pay the full charge for the semester. The high demand for on-campus housing makes it necessary for Residential Life to strictly enforce its cancellation policy.

Students who withdraw from the University will have their meal plan charges prorated to the end of the week they complete the University Withdrawal Form in the Office of the Registrar. Students must also complete the official housing withdrawal form and return their keys to their resident director's office. Housing charges for students who withdraw from the University will be prorated only through the end of the fifth week of the semester.

## TERMINATION FEE POLICY FOR WITHDRAWAL FROM THE RESIDENCE HALLS

Failure to provide timely written notification of cancellation of housing will result in a charge to students for their assigned space. If the cancellation deadline has passed, students who can demonstrate a significant change in academic or co-op circumstances may petition for a waiver of this fee. See cancellation fee schedule that follows:

## Housing termination fees for students who withdraw from housing but not from the University:

|  | Notification Required |  | Summer |
| :--- | :--- | :--- | :--- |
| Amount Charged | Fall '09 | Spring '10 | 1 and 2'10 |
| Deposit refunded; <br> no charge | Before | Before | Before |
|  | $6 / 15 / 09$ | $11 / 1 / 09$ | $3 / 1 / 10$ |
| 25\% of semester | After | After | After |
| room charge* $6 / 15 / 09$ $11 / 1 / 09$ | $3 / 1 / 10$ |  |  |
|  |  |  |  |
| 50\% of semester | After | After | After |
| room charge* | $7 / 15 / 09$ | $11 / 15 / 09$ | $3 / 15 / 10$ |
|  |  |  |  |
| 75\% of semester | After | After | After |
| room charge* | $8 / 5 / 09$ | $12 / 1 / 09$ | $4 / 1 / 10$ |
|  |  |  |  |
| 100\% of semester | After | After | After |
| room charge* | $8 / 20 / 09$ | $12 / 15 / 09$ | $4 / 15 / 10$ |

*Deposit for the semester is applied to the cancellation charge.

## DINING SERVICES

The following students are required to participate in the 19-, 15-, or 10-meal plan operated by University Dining Services:

- All freshmen (during their first two semesters as matriculated college students) living in University housing.

The following students are required to participate in the 19-, 15-, or 10- or 5-meal plan operated by University Dining Services:

- All upperclass students living in traditional University residence halls and suites without kitchen facilities.

Students living in a meal-required residence are automatically billed for the 15 -meal plan. All other students may choose to enroll in a meal plan by following the instructions on the Meal Plan link on the myNEU Web Portal (myneu.neu.edu). Students have through the first week of the term to reduce their meal plan. You are allowed to increase your meal plan at any time. Visit www.northeastern.edu/registrar/husky-mealplan.html for additional details.

## Note: All freshmen living on campus in any residence hall are required to be enrolled in a $10-$, $15-$, or 19 -meal plan.

Visit www.dineoncampus.com/northeastern/ for information about menus and dining locations.

Changes to the meal plan are made via the myNEU Web Portal (myneu.neu.edu). Deadlines apply. Visit www.northeastern.edu/registrar/husky-mealplan.html for details.

| Meals per week | Full semester | Summer half semester |
| :--- | :--- | :---: |
| 19 | $\$ 2,910$ | $\$ 1,455$ |
| 15 | 2,690 | 1,345 |
| 10 | 2,335 | 1,168 |
| 5 (upperclass only) | 1,190 | 595 |

## Husky Dollars

Students can deposit funds into a Husky Dollar account and access these funds using their Husky Card at over 100 restaurants and retail locations on and off campus, including the University's bookstore. The account accrues no interest. Visit www.northeastern.edu/registrar/husky.html for additional information, including vendor locations and instructions on how to add funds to your account.

## Academic Policies and Procedures

This section presents general information about what is expected of students and how progress toward graduation is measured. For specific details on individual degree programs, students should consult their academic advisors. The University assumes no liability for any delay in providing or failing to provide educational or related services or facilities due to causes beyond the reasonable control of the University. Causes include, but are not limited to, power failure, fire, strikes by University employees or others, weather damage, and acts of public authorities. However, when in its judgment it is appropriate to do so, the University will exert reasonable efforts to provide comparable or substantially equivalent services, facilities, or performance; but its inability or failure to do so shall not subject it to liability. No faculty member, administrator, or other representative of the University shall make any representations to, or enter into any agreements with, or act toward any student or other person in any manner that is not in conformity with established University policies, practices, and procedures as expressed in this or any other official University document.

## ACADEMIC INTEGRITY POLICY

Essential to the mission of Northeastern University is the commitment to the principles of intellectual integrity.

Academic integrity is important for two reasons. First, independent and original scholarship ensures that students derive the most from the educational experience and the pursuit of knowledge. Second, academic dishonesty violates the most fundamental values of an intellectual community and depreciates the achievements of the entire University.

Accordingly, Northeastern University views academic dishonesty as one of the most serious offenses that a student can commit while in college. Academic dishonesty includes cheating, fabrication, plagiarism, unauthorized collaboration, participation in academically dishonest activities, and facilitating academic dishonesty.

All members of the Northeastern University communitystudents, faculty, and staff-share the responsibility to bring forward known acts of apparent academic dishonesty. Any member of the academic community who witnesses an act of academic dishonesty should report it to the appropriate faculty member or to the director of the Office of Student Conduct and Conflict Resolution.

The charge will be investigated and if sufficient evidence is presented, the case will be referred to the Northeastern University Student Judicial Hearing Board.

Visit www.osccr.neu.edu for a full description of these policies and procedures.

## ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

The University encourages students who seek an accommodation for a documented disability or disabilities that are substantially limiting, including "invisible" disabilities such as chronic diseases or learning disabilities, to register with the Disability Resource Center (DRC, 20 Dodge Hall, 617.373.2675, www.access-disability-deaf.neu.edu/). Students should register as soon as possible upon arriving on campus. The information provided will be kept confidential except that relevant faculty and staff will be informed if they are expected to provide accommodations. The University is committed to providing reasonable accommodations for students with documented disabilities that are substantially limiting. When services are approved, the DRC will provide the student with a letter of introduction to faculty, which indicates the service(s)/accommodation(s) for which the student has been approved. To initiate the recognition that
service(s)/accommodation(s) have been approved and are being provided, students are encouraged to furnish a copy of the letter of introduction to their instructor(s) before the start of classes and no later than the second week of the term.

## ATTENDANCE REQUIREMENTS

The University expects students to meet attendance requirements in all courses to qualify for credit. Attendance requirements vary; it is the student's responsibility to ascertain what each instructor requires. Failure to meet attendance requirements may force a student to drop the course. Classes for day students are normally scheduled from 8:00 AM to 5:40 PM, Monday through Friday. Students should not make conflicting commitments until the class schedules for each semester are final. Permission to make up work may be granted by instructors for reasonable cause. Requests must be made immediately upon a student's return to class. Laboratory work can be made up only during the hours of regularly scheduled instruction.

## Absence Because of University-Sponsored Activities

Participation in University-sponsored activities, where the students are representing their University, college, or department, may cause absences from class that qualify as excused absences. Excused absences, with appropriate prior arrangement, are not subject to penalty, and missed work may be satisfied through agreement between the student and the instructor. Universitysponsored activities that may justify excused absences include athletic competition, performing arts events, and research or other presentations.

Students must discuss absence(s) with instructors at least two weeks in advance of the University-sponsored activity, or as soon as possible if the activity is at the beginning of the term or is the result of an unforeseen circumstance. Instructors may require a written statement from the administrator in charge of the activity. Instructors are expected to make reasonable accommodations for these class absences including administration of makeup assignments and exams whenever possible. It is expected that students seeking an excused absence will develop a plan and timetable to make up the missed course work with their instructor(s). Please note, however, that the requirements of some courses or programs may preclude such accommodations.

## Absence Because of Religious Beliefs

Any student who is unable, because of his/her religious beliefs, to attend classes or to participate in any examination, study, or work requirement shall be provided with an opportunity to make up such examination, study, or work requirement that he/she may have missed because of such absence on any particular day; provided, however, that such make-up examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of availing himself/herself of the provisions of this section (Massachusetts General Laws, Chapter 151C, Section 2B, 1985). Students should make appropriate arrangements with the instructor in advance of the absence, preferably at least two weeks before the religious observance.

## Absence Because of Jury Duty

Members of the University community are expected to fulfill their obligations to serve on a jury if called upon. A student selected for jury duty should inform his or her instructors. They will provide a reasonable substitute or compensatory opportunities for any required work missed. Such an absence will not be penalized in any way.

## Absence Because of Military Deployment

The policy for military leave of absence is set forth on page 24.

## Other Absences

Unforeseen events or circumstances, including illness, accident, catastrophic event such as fire, and bereavement, may cause a student to be absent from class. If such events occur, students are encouraged to notify their academic advisor and instructors as soon as possible in order to apprise them of the circumstances leading to their absence as well as how much time will be missed. Students should work with their instructors to develop a plan, with a timetable, to make up missed course work. Students may be asked to provide documentation to provide perspective that the class absence is warranted. Instructors are expected to make reasonable accommodations for warranted class absences, including administration of makeup assignments and exams, whenever possible.

## Extended Absences

A student who is absent from school for an extended period of time must inform his or her college by letter, e-mail, or telephone. The expected length of the absence may determine whether the student should apply for an "Emergency Leave of Absence" (see page 24). It is strongly recommended that the student alert the academic advisor and also discuss potential next steps, such as incomplete grade or withdrawal, or, in the event of an extended absence due to a chronic medical condition or disability, consultation with the Disability Resource Center to explore potential accommodation.

## CLASS SCHEDULES

All classes start promptly according to the class schedule shown. Most classes at Northeastern are scheduled in the time periods listed.

Students are expected to be punctual. Students who are late for classes should attend for the balance of the period. Instructors will not tolerate habitual tardiness.

Students may leave fifteen minutes past the scheduled opening of class if the instructor is not present. In such cases, students should notify the department giving the course that the instructor was not present.

Any change of regularly scheduled classes or examinations must have the unanimous consent of the students involved unless other mutually acceptable arrangements for students to attend the alternative class or examination are worked out between the faculty member and the student(s) involved.

## Fall and Spring Schedule

| Sequence 1 | MWTh | $8: 00-9: 05$ <br> Sequence 2 |
| :--- | :--- | :--- |
| MWTh | $9: 15-10: 20$ |  |
| Sequence 3 | MWTh | $10: 30-11: 35$ |
| Sequence 4 | MWTh | $1: 35-2: 40$ |
| Sequence 5 | MWTh | $4: 35-5: 40$ |
| Sequence 6 | TuThF | $11: 45-12: 50$ |
| Sequence 7 | TuWF | $3: 25-4: 30$ |
| Sequence A | MTh | $11: 45-1: 25$ |
| Sequence B | MW | $2: 50-4: 30$ |
| Sequence C | TuF | $8: 00-9: 40$ |
| Sequence D | TuF | $9: 50-11: 30$ |
| Sequence E | TuF | $11: 45-1: 25$ |
| Sequence F | TuF | $1: 35-3: 15$ |
| Sequence G | TuF | $3: 25-5: 05$ |
| Sequence L | MWTh | $8: 00-11: 35$ |
| Sequence M | MTh | $11: 45-2: 40$ |
| Sequence N | MW | $2: 50-5: 40$ |
| Sequence P | MWTh | $8: 00-10: 20$ |
| Sequence Q | MTh | $10: 30-1: 25$ |
| Sequence R | MW | $1: 35-5: 40$ |
| Sequence S | MW | $1: 35-4: 30$ |
| Sequence T | TuF | $8: 00-11: 30$ |
| Sequence U | TuF | $11: 45-3: 15$ |
| Sequence V | TuF | $3: 25-5: 25$ |
| Sequence W | TuF | $1: 35-5: 05$ |

## Summer Schedule

| Sequence 1 | MTuWTh | $8: 00-9: 40$ |
| :--- | :--- | :--- |
| Sequence 2 | MTuWTh | $9: 50-11: 30$ |
| Sequence 3 | MTuWTh | $1: 30-3: 10$ |
| Sequence 4 | MTuWTh | $3: 20-5: 00$ |
| Sequence 5 | TuWTh | $11: 40-1: 20$ |
| Sequence A | MW | $8: 00-11: 30$ |
| Sequence B | MW | $1: 30-5: 00$ |
| Sequence C | TuTh | $8: 00-11: 30$ |
| Sequence D | TuTh | $1: 30-5: 00$ |

## Activities Periods

Undergraduate activities hours are Wednesday, 11:45 AM-1:25 PM, and Thursday, 2:50 PM-4:30 PM, during fall and spring semesters. Summer activities hours are Monday, 11:40 AM-1:20 PM.

## GRADING SYSTEM

Grades are officially recorded by letters, evaluated as follows.

| Grade | Numerical <br> Equivalent | Status |
| :---: | :---: | :---: |
| A | 4.000 | Outstanding achievement |
| A- | 3.667 |  |
| B+ | 3.333 |  |
| B | 3.000 | Good achievement |
| B- | 2.667 |  |
| C+ | 2.333 |  |
| C | 2.000 | Satisfactory achievement |
| C- | 1.667 |  |
| D+ | 1.333 |  |
| D | 1.000 | Poor achievement |
| D- | 0.667 |  |
| F | 0.000 |  |
| I |  | Incomplete in a letter-graded course. |
| S |  | Satisfactory achievement in pass/fail course; counts toward degree requirements. |
| U |  | Unsatisfactory achievement in pass/fail course. |
| X |  | Incomplete in a pass/fail course. |
| NE |  | Not enrolled. Did not attend after the date of record, the start of the second full week. |
| IP |  | Course in progress. Intended for courses such as senior thesis or a project that extends over several semesters. An IP can be replaced by a regular grade with a standard change-of-grade card. The time restrictions on the I grade do not apply to the IP grade. While unchanged, it is not included in computing the grade-point average. If never changed, the course does not count toward graduation requirements. |

An I, IP, or X grade shows that the student has not completed the course requirements.

## Pass/Fail System

The individual schools and colleges state how and when the pass/fail system may be used. An outline of the general system follows.

- Any student not on academic probation may register for one pass/fail course per semester if permission is granted by the college in which the student is enrolled and if the course is offered on a pass/fail basis.
- Pass/fail courses are normally restricted to electives outside the major field. The college faculty, however, may choose to adopt the pass/fail system of grading when it appears pedagogically sound for required courses within a program.
- Before requesting a pass/fail grade from an instructor, students should meet with their academic advisor to determine whether doing so will disqualify the course from satisfying a program requirement or elective. In general, courses taken on a pass/fail basis can be used only to satisfy open electives.
- Individual faculty members may decide whether any of their courses may be taken on the pass/fail system of grading, except when uniformity is necessary. In such cases, the department and/or college faculty offering the course determine whether the pass/fail system is used.
- Grades recorded on the basis of the pass/fail system do not figure in the computation of the grade-point average. Satisfactory completion of all courses taken on the pass/fail system is designated on the student's permanent record by the letter S. Unsatisfactory work is designated by the letter U. Any unsatisfactory grade must be handled according to the existing policy of the college but must never be cleared through the election of the same course pass/fail, except when this system is the only one used by the college for grading the course.
- An incomplete in a course taken on a pass/fail basis is designated by the letter X on the permanent record and treated according to the normal procedure for incomplete grades.
- To use the pass/fail system, students must meet all prerequisites for the course. They have until the end of the second week of the semester to declare their intention to receive a pass/fail grade. This deadline may be extended to the end of the eighth week at the option of the instructor.
- Students must submit a form available at www.northeastern.edu/registrar/forms.html signed by the faculty member.


## Clearing an Incomplete (I) or Changing Other Grades

An I grade may be reported by the instructor when a student has failed to complete a major component of a required course, such as homework, a quiz or final examination, a term paper, or a laboratory project. Students can make up an I grade by satisfying the requirements of the instructor or, if the instructor is absent, the chair of the department. Be aware that instructors' policies on the granting of incomplete grades may vary, and that the final decision on an incomplete grade is up to the instructor. The period for clearing an I grade and for changing a grade other than an I or failure ( $F$ or $U$ ) is restricted to one calendar year from the date it is first recorded on the student's permanent record.

Freshmen with multiple course deficiencies, including I grades, may be required by their student services office advisor to rectify the deficiencies within a period of time less than the normal year.

To clear an I grade, a student must obtain a form on which the precise agreement for clearing an incomplete (I or X) grade is specified and which is signed by the student and the instructor. Forms are available at www.northeastern.edu/registrar/forms.html. The student must make an appointment with the instructor to arrange for clearing the I grade. He or she must then complete the form, sign the agreement, and obtain the instructor's signature;
leave a copy with the instructor, take one copy to the college student services office, and retain a copy as a personal receipt. Any exception to this policy on change of grades must be recommended by the Academic Standing Committee of the college in which the course was offered and must be forwarded in writing by the dean to the registrar for implementation. (Finishing the agreed-upon course work must be completed within one calendar year from the end of the semester in which the course was offered.)

Commencing with grades given in the fall quarter of 1986, the University policy is that any grade outstanding for twelve or more months cannot be changed.

Any exception to this policy on change of grades must be recommended by the Academic Standing Committee of the college in which the course was offered and must be forwarded in writing by the dean to the registrar for implementation.

## Credit Hours

Course credit hours (semester hours) are assigned to a course based on the established national educational standard that one credit hour is equal to approximately three hours of student learning time per week over a period of a semester (usually fifty minutes of lecture or discussion, plus two hours of individual study outside class). When much individual study is involved, as in directed study or certain graduate courses, each additional hour of credit should represent at least three hours of student work.

## Repeating Courses

Courses may be repeated in order to earn a better grade. In all cases the most recent grade earned in a course is the one used in calculating the overall grade-point average; however, previous grades remain on the transcript followed by the word "Repeat." Consult your academic advisor before repeating a course. Students are required to pay normal tuition charges for all repeated course work.

## Substituting Courses

In unusual cases, it may not be possible to repeat a course if a student wishes to do so. In certain circumstances, students may petition to substitute one course for another they have already taken, as long as the subject matter of both courses is substantially alike. With the approval of the student's academic advisor and the agreement of the department that offered the first course taken, a grade received in the new course will be labeled "Substitute" on the transcript and will be treated in the grade-point average calculation as a "repeat" grade, as described above. The original grade will remain on the student's Northeastern transcript. Consult your academic advisor before enrolling in any proposed substitute course. Students are required to pay normal tuition charges for all substitute course work.

## Clearing an Academic Deficiency

An academic deficiency occurs when a student fails to complete a course with a satisfactory grade. The deficiency may occur because the student has failed the course or because the student has passed the course but with a grade that does not meet the minimum required by the student's program.

Students who have academic deficiencies may be required to clear them before progressing within the curriculum, especially if the course work is a prerequisite for future course work. Deficiencies can affect the student's expected year of graduation. With the approval of the appropriate program faculty and/or academic advisor, students can clear deficiencies in the following ways:

1. Repeat the same course at one of Northeastern's colleges, which will result in a "repeat" grade (see "Repeating Courses" policy above).
2. Substitute a comparable course at one of Northeastern's colleges, which will result in a "substitute" grade (see "Substituting Courses" policy above).
3. Under special circumstances, a student may be advised to take a preapproved course at Northeastern's College of Professional Studies or at another institution outside Northeastern University. The original grade will remain on the student's Northeastern transcript and will still be used in the calculation of the grade-point average.

## Dean's List

A dean's list, or honors list, is issued at the end of each fall and spring semester containing the names of students who have a 3.250 grade-point average or higher with no I grade or grade below C-. Students who are on any form of probation, who are enrolled in a course on a pass/fail basis (except where there is no alternative or where required by the program), or who are not carrying a full load as determined by their undergraduate college are not eligible. With a few exceptions as approved by the respective colleges, a full load for fall and spring semesters is considered to be a minimum of four courses or 16 semester hours.

## Grade-Point Average (GPA)

Numerical equivalents for scholastic averages are weighted according to the number of hours the course carries. For example, suppose a student receives a grade of B in a course carrying 4 semester hours and a grade of A in a course carrying 1 semester hour. The weightings for these example courses are as follows:

| Grade | Numerical <br> Equivalent | Semester <br> Hours | Weight |
| :--- | :--- | :---: | :---: |
| B | 3.000 | 4 | 12 |
| A | 4.000 | -1 | $\frac{4}{16}$ |
| Totals: |  | 5 |  |

The GPA for both courses would then be the total weight (16) divided by the total semester hours (5), or 3.200. Grades of X, I, IP, S, and U are not included in the calculation of the grade-point average. Please see page 16 for a complete list of grades and numerical equivalents.

## Grade Reports

Grades are available to students approximately three days after the end of each semester via the myNEU Web Portal (www.myneu.neu.edu). A missing grade ("*" on grade report) means that none was received from the instructor.

## Transcripts

Official transcripts are available upon request at the Transcript Office, 120 Hayden Hall, during regular business hours. Written requests for official transcripts can be mailed to: Transcript Office, 120 Hayden Hall, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Fax requests are also accepted at 617.373.5351; however, official transcripts are delivered only in person and by mail, not by fax. For further information on what needs to be included in the fax request, please visit www.northeastern.edu/registrar/trans_request.html. All questions concerning transcript requests should be directed to the above address or to 617.373.2199, TTY 617.373.5360. Currently enrolled students may obtain unofficial transcripts from the myNEU Web Portal (www.myneu.neu.edu).

## EXAMINATIONS

Final examinations are held during the last week of each semester. An examination schedule is posted on the Web at www.northeastern.edu/registrar/finexsched.html. It is the student's responsibility to know the time and location of each of his or her examinations. Final examinations are normally two hours in length.

- Students who have a final examination conflict (two examinations at the same hour or three examinations in one day) should go to the Office of the Registrar, 120 Hayden Hall, within the first two weeks of classes.
- Instructors may not give more than one half-hour examination in the week prior to final examinations.
- Final examinations must be held when scheduled by the Office of the Registrar.
- Students must adhere to instructor's rules of conduct during examinations.
- Students who have concerns about exams scheduled during the final week of classes, rescheduling of final examinations, or conduct during an examination should report their concerns to their college student services office, who will in turn notify the vice provost for undergraduate education.
- Students have the right to see their graded papers and examinations and discuss them with the instructor even if the papers are not returned.
- Any change of regularly scheduled classes or examinations must have the unanimous consent of the students involved unless other mutually acceptable arrangements for students to attend the alternative class or examination are worked out between the faculty member and the student(s) involved.
- In order that they may be available if a question arises about the final grade in a particular course, all final examinations, term papers, or projects that are not returned to students must be retained by the instructor or by the department for a period of one year.

ACADEMIC PROGRESSION STANDARDS

## Academic Status

Academic progress of all freshmen is reviewed by academic advisors at the end of each semester of the freshman year. Students are notified soon after final grades are posted if there are concerns about academic progress in any or all of the following areas: (1) overall GPA; (2) semester hours successfully completed; and (3) failing or near-failing grades in courses that are required for progress in the major.

Students at Northeastern maintain good academic standing when they meet the following criteria: (1) have an overall GPA of 1.800 at the end of each semester of their freshman year and a minimum cumulative GPA of 2.000 at the end of each semester thereafter and (2) earn at least 12 semester hours in the semester just completed. Individual colleges may have additional requirements that are specified in each college section that follows.

In addition, many programs require that specific courses be successfully completed to progress to the next year. Students who do not make satisfactory progress will not graduate with their class and may be withdrawn. For more information about additional academic progression standards for each college, program, or major, refer to the curriculum guidelines that can be found in the college sections of this catalog. For financial aid implications, see "College Expenses" beginning on page 9.

## Academic Probation

Full-time students who fail to meet the criteria for good standing described above will be placed on academic probation effective for the following semester. The action will appear on the internal record, but not on the transcript.

## Academic Dismissal

Students who remain on probation after two full-term academic semesters may be dismissed from the University. This action may appear on the transcript at the end of the second probationary semester. In addition, students who have below a 1.000 GPA in any semester following their first semester or cumulatively may be dismissed at the discretion of their college. Students may appeal this decision to the Academic Standing Committee of their college
(see following section). International students should consult with an advisor in the International Student and Scholar Institute to discuss the impact of an academic dismissal as it relates to nonimmigrant visa status.

## Academic Standing Appeals

Students may appeal academic standing status if they can provide evidence and/or reasons supporting an appeal. Generally, a student on probation may be granted no more than one additional full-term academic semester to meet the criteria for good academic standing. Students may appeal to the Academic Standing Committee of their college to review probation and dismissal cases.

## Academic Eligibility for Participating in Student Organizations and Athletics

All students must have a minimum 2.000 overall grade-point average to be eligible for an elected or appointed leadership position in any student organization. Athletes must adhere to NCAA standards.

## Repeating Courses to Clear Deficiencies

Please see "Repeating Courses" and "Clearing an Academic Deficiency" on page 18.

## GRADUATION REQUIREMENTS

To be eligible to receive degrees, graduating seniors must meet all academic and residency requirements. They must also clear all financial, cooperative education, and disciplinary deficiencies.

University-wide academic degree requirements are:

- Minimum of 128 semester hours to graduate with bachelor's degree. Some programs have higher semester-hour requirements.
- An overall GPA of 2.000.
- Satisfaction of the NU Core requirements.

In addition, each program of study has specific academic requirements. These are specified for each program in this catalog.

Once they matriculate, students are expected to complete all course work for their degree at Northeastern, or an entity in a formal contractual, consortial, or partnership relationship with Northeastern, or at an approved Northeastern University studyabroad program. In some cases, in order to clear a deficiency, to permit students access to courses deemed by their respective advisors and colleges to be important for their educations but unavailable to them at Northeastern, or to remain on track for graduation, a student may petition their college for permission to take a course at another accredited institution.

Participation in study abroad in a student's final semester may result in a delay in graduation due to calendar discrepancies across institutions.

Prior to completion of their program, students are expected to complete a graduation degree audit at their college's Undergraduate Student Services Office.

Graduation with honors and selection as the class marshal (spring commencement only) are reserved for undergraduates who have completed 60 semester hours in residence. To graduate with honors, the student must meet the following GPA requirements.

| Grade-point average | Honor conferred |
| :--- | :--- |
| $3.250-3.499$ | Graduate with honor (cum laude) <br> $3.500-3.749$ <br> Graduate with high honor <br> (magna cum laude) <br> Graduate with highest honor <br> (summa cum laude) |

Attendance at commencement is optional. Information concerning commencement is provided to all graduating seniors during the spring semester for spring commencement or during the summer semester for fall commencement. Seniors who have been removed from the graduation list are notified if they fail to qualify for their degrees. No special notice is sent to students who do qualify.

## REGISTRATION PROCEDURES

Students are expected to preregister for classes during the published registration times in the academic calendar. Freshmen may be preregistered for some or all of the courses they need. Most registration after the freshman year is accomplished through the myNEU Web Portal (www.myneu.neu.edu). Confirmations of class registrations are mailed to students prior to the start of classes. Students must complete "I Am Here" registration just prior to the start of classes in order to remain enrolled.

## Course Prerequisites

Students are expected to meet prerequisites as listed in the course description of each course in which they enroll. Grades of F, U, I, X , or W in prerequisite courses do not normally fulfill requirements. Exceptions must be authorized by the instructor teaching the course.

## Overload Policy

An overload occurs when a student is enrolled in more courses than prescribed by the program's curriculum. To register for an overload, students are advised to consult their academic advisor. Students who enroll in overload courses will be billed at the per-credit-hour rate, $1 / 16$ of the full-semester tuition for that semester per semester hour. Undergraduate full-time day students may register for an additional music ensemble course from the list of courses on page 10 without added charge as long as they are registered for a full course load.

## Reduced Load Policies

Undergraduate full-time student adjustments for reduced loads are made only when the Undergraduate Petition to Reduce Load is approved by the academic department and by the Office of the Registrar. Adjustments will then be made if the course load falls below 12 semester hours during full semesters and 6 semester hours during summer half semesters (calculated at the per-credithour rate). To receive an adjustment, the Undergraduate Petition to Reduce Load must be submitted prior to the start of the term.

No rebate or credit is granted when a student voluntarily drops a course. A reduced load may impact the student's housing, financial aid, visa status, and health insurance. Students should consult applicable departments before committing to a reduced load. Students who take a reduced load will be billed at the per-credit-hour rate, $1 / 16$ of the full-semester tuition for that semester per semester hour.

## Declaring Majors and Minors

Undergraduate students generally declare their majors upon admission to the University or in the spring semester of their freshman year. Majors are described under the various schools and colleges in this catalog.

Students should submit a petition form to earn a minor as early as possible, and no later than the end of the junior year, by applying to the department offering the minor.

## Double Major or Dual Major, Double Degree, Second Baccalaureate

## DOUBLE MAJOR OR DUAL MAJOR

Students may earn a double major or dual major by completing all requirements for two majors in one college (double major) or the dual major program specified in this catalog. Students completing a double major or dual major receive one diploma. The double major or dual major is noted on the transcript.

## DOUBLE DEGREE

To earn two degrees from different colleges, a student must complete all the requirements for both degrees. Two diplomas will be awarded and both degrees will be noted on the transcript.

## SECOND BACCALAUREATE

To earn a second baccalaureate, a student must complete all the requirements for the degree and must complete 30 semester hours beyond the semester-hour requirement for the first baccalaureate degree. A second diploma will be awarded and the second degree will be noted on the transcript.

## Internal Transfers

Students wishing to transfer to another college within Northeastern University should consult the internal transfer program information located on the Office of the Registrar's Web site (www.northeastern.edu/registrar/itp.html). Transfer to another college is not automatic but is based on a number of factors,
including academic achievement and availability of space. Deadlines are at the discretion of the colleges.

Students who wish to change majors within the same college should consult the student services office of that college.

## Transfer Credits for Current Students

Once they matriculate, students are expected to complete all course work for their degree at Northeastern, or an entity in a formal contractual, consortial, or partnership relationship with Northeastern, or at an approved study-abroad program. In some cases, in order to clear a deficiency, to permit students access to courses deemed by their respective advisors and colleges to be important for their educations but unavailable to them at Northeastern, or to remain on track for graduation, a student may petition their college for permission to take a course at another accredited institution.

With the approval of the college student services office, students may take courses in Northeastern's graduate schools.

Students who wish to take courses at another institution and transfer the credit to Northeastern must obtain prior approval from the college student services office. The Office of the Registrar validates accredited institutions to ensure credit transferability. The student must earn a C (2.000) or better for a course to be considered for transfer. Students are responsible for providing documentation on the institution's accreditation, course grading, and course descriptions prior to approval.

## Special Students

Students who are not enrolled at Northeastern University may petition the college student services office to take courses on a semester-by-semester basis. Approval is based on the student's academic qualifications and on the availability of class space. If the college student services office approves the course enrollment, the student pays the bill and then returns the completed forms to the Office of the Registrar.

## Taking a Course while on Co-op or on Summer Vacation

Students who wish to take a course while on co-op or on summer vacation must complete an appropriate form in their college student services office before the term begins. Students on co-op should complete the petition registration form, and students on summer vacation should complete the summer-only petition registration form. Students who do not file the appropriate form will be dropped from their preregistered courses. Students who take a course while on co-op will be billed the overload tuition rate. Students who take a course while on summer vacation will be billed at the underload tuition rate. (See "Overload Policy" and "Reduced Load Policies" on page 20.)

## Dropping Courses

Not attending class does not constitute withdrawal. Students receiving a grade of W or X or NE in any course are responsible for the costs associated with that course. Students must drop courses using processes described below:

## IN FALL AND SPRING SEMESTERS

- Through the third week of the semester, students may withdraw without any grade being posted to the transcript. Courses may be dropped via the myNEU Web Portal (www.myneu.neu.edu).
- Between the fourth and eleventh week, students must complete a course drop form (available at the Office of the Registrar or the college student services office), and have it signed by their instructor and by a representative of either their college student services office or the department that offers the course. Students must return the original copy to the Office of the Registrar and keep a copy for themselves. Course withdrawals during this time are indicated by a W on the student's record. A faculty member may choose not to sign a course withdrawal form if a student was involved in any kind of academic dishonesty in the class. No financial adjustment is made for courses receiving a W grade.
- After the eleventh week, no withdrawals are accepted for any reason. A letter grade for the course will be posted on the transcript.
- Dropping below full-time enrollment (12 semester hours for fall and spring semesters) may affect financial aid, health insurance eligibility, and the maintenance of proper nonimmigrant visa status.


## IN SUMMER HALF SEMESTERS

- Through the second week of the half semester, students may withdraw without any grade being posted to the transcript. Courses may be dropped via the myNEU Web Portal (www.myneu.neu.edu).
- Between the third and fifth week, students must complete a course drop form (available at the Office of the Registrar or the college student services office), and have it signed by their instructor and by a representative of either their college student services office or the department that offers the course. Students must return the original copy to the Office of the Registrar and keep a copy for themselves. Course withdrawals during this time are indicated by a W on the student's record. A faculty member may choose not to sign a course withdrawal form if a student was involved in any kind of academic dishonesty in the class. No financial adjustment is made for courses receiving a W grade.
- After the fifth week, no withdrawals are accepted for any reason. A letter grade for the course will be posted on the transcript.
- Dropping below full-time enrollment (8 semester hours for summer half semesters) may affect financial aid.


## Late Admission to a Course

Students may petition to register for a course after the normal "class add" period. Permission may be granted if seats are available and at the discretion of the instructor. If students are not already registered for a full course load, late admissions may jeopardize full-time status.

Forms for late admission are available at the Office of the Registrar and at www.northeastern.edu/registrar/forms.html.

PERSONAL INFORMATION

## Change of Name

Report all name changes to the Office of the Registrar immediately. This is especially important when students marry and wish to use a new name on University records.

## Change of Address

Report all address changes via the myNEU Web Portal (www.myneu.neu.edu) or in person at the Office of the Registrar or Office of Student Accounts. Both the permanent home address and the local address are required. International students must also report any changes of address to the International Student and Scholar Institute within ten days in order to ensure compliance with SEVIS requirements.

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

## FERPA for Students-General Information

FERPA is a federal law that applies to educational institutions. Under FERPA, schools must allow students who are 18 years or over or attending a postsecondary institution:

- Access to their education records
- An opportunity to seek to have the records amended (see the Student Handbook for this procedure)
- Some control over the disclosure of information from the records


## FERPA General Guidance for Parental Disclosure

When a student turns 18 years of age or attends a postsecondary institution, the student, and not the parent, may access, seek to amend, and consent to disclosures of his or her education records.

If you are an undergraduate day student and you choose not to share information with your parents, Northeastern will, if asked, indicate that you have restricted access to your records.

## Release of Directory Information

The primary purpose of directory information is to allow Northeastern University to confirm attendance for employers,
health insurance companies, and loan agencies. Northeastern may disclose appropriately designated "directory information" without written consent, unless you have advised the University to the contrary in accordance with the procedures below. If you choose not to release directory information, all communications with all third parties and agencies will need to be done through your written request to the University or in person.

Northeastern Directory Information:

- College and major
- Dean's List or other recognition lists
- Graduation degree(s) and honors
- Dates of attendance
- Sports activity participation, such as for soccer, showing weight and height of team members
- A playbill, showing your role in a drama or music production

If Northeastern currently has permission to release data and you do not want the University to disclose directory information without your prior written consent, you must notify the University by coming to the Office of the Registrar, 120 Hayden Hall.

## Notification of Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights are:

1. The right to inspect and review the student's education records within forty-five days of the day the University receives a request for access. Students should submit to the registrar, dean, or head of the academic department (or appropriate official) written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education record that the student believes is inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University 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 University decides not to amend the record as requested by the student, the University 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 disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure
without consent, is disclosure to school officials with legitimate educational interest. A school official is defined as a person employed by the University in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a person assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. At Northeastern, the Office of the University Registrar, 120 Hayden Hall, administers FERPA.
5. Information concerning the following items about individual students is public and the offices listed below have the most accurate and up-to-date information:

## - Office of the Registrar

(120 Hayden Hall)
Full name, major field of study, dates of attendance, class year, degrees and awards received, most recent previous educational institution attended.

- Department of Athletics
(219 Cabot Physical Education Center)
Participation in formally recognized University athletics, weight and height of members of athletic teams.
- Campus Activities
(434 Curry Student Center)
Participation in officially recognized University activities and student organizations.


## Additional Information

Additional information can be obtained at the following Web site: www.ed.gov/policy/gen/guid/fpco/ferpa/index.html
or by writing to:
Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5920

## FERPA and the USA Patriot Act

The USA Patriot Act preempts FERPA, described above. The act provides federal law enforcement agencies access to otherwise confidential student records upon the presentation of specified authority. The act also says that the University cannot notify the individual whose records or information is being sought that the request has been made. All requests for student information made under the authority of the USA Patriot Act are handled by the Office of University Counsel, 115 Churchill Hall.

## STUDENT RICHT-TO-KNOW ACT

For information about the Student Right-to-Know Act, please visit www.northeastern.edu/registrar/right-to-know.html.

## UNIVERSITY WITHDRAWAL

Students seeking to withdraw from the University for any reason should contact the student services office of their college.

Students may be withdrawn from the University for financial, disciplinary, academic, or health reasons. In the last case, the vice president for student affairs will review the recommendations of the director of health services to determine whether the student should withdraw. Withdrawals are made only when it is determined that the student is a danger to himself or herself or to other members of the University community, or when the student has demonstrated behavior detrimental to the educational mission of the University.

International students should discuss maintenance of proper U.S. immigration status with an advisor at the International Student and Scholar Institute before requesting or after having been placed on withdrawal.

## LEAVE OF ABSENCE

## General Leave of Absence Policy

Students who wish to take a leave of absence are encouraged to apply for the leave by filling out the proper petition with their college one month prior to the start of the effective semester. The usual limit for a leave of absence is for one or one and a half academic semesters (a semester plus a half semester). A leave of absence, if approved, will take into account the following conditions:

- Students who do not return at the end of the leave will be withdrawn and must submit a petition for subsequent readmission to the program.
- Students must return to classes, not co-op.
- Students must be currently enrolled in academic courses or coop. If a student is withdrawn for any reason, a request for a leave of absence cannot be considered until the withdrawal is resolved.
- Students who receive financial aid should meet with a financial aid counselor before going on a leave.
- Students in University housing should refer to the Office of Residential Life for policy information.
- Students' enrollment status cannot include more than one academic year of consecutive nonclass enrollments.

Students returning from an approved leave of absence must submit a notification of intent to return to their college student services office no later than one month prior to the start of the semester in which they intend to return. Students are required to preregister for courses upon returning from a leave of absence.

## Emergency Leave of Absence

Emergency leaves may be granted when a student cannot continue attending class after the start of the term but is confident that he or she will reenroll at the University in a future term. The University's emergency leave policy states that all tuition charged for the term in which the leave has been granted will be held by the University and applied toward future tuition charges in the same academic program. This would not apply if the leave of absence extends more than six months. Outstanding balances (including unpaid balances) for the academic term in which the leave is taken are still due the University. Tuition adjustments are made depending on the timing of the emergency leave. The adjustments would follow the same schedule as the Official Withdrawal adjustments. See page 10 for the schedule for "Refunds for Complete Withdrawal." Financial aid recipients must contact their financial aid counselor to understand the effects on aid received.

If the leave extends more than six months, student loans may go into repayment. After six months on leave, students will be withdrawn from the University. Students enrolled in the Northeastern University Student Health Plan (NUSHP) will remain enrolled in the plan, unless their medical leave ends in the summer term and they do not return to school in the fall term.

Emergency leave petitions are available in college student services offices and specify the conditions and procedures under which such leaves may be granted.

Medical leave petitions must be initiated at University Health and Counseling Services. Medical leave is an option available to those Northeastern students who become seriously ill or injured during the semester. A student who develops a major medical condition that precludes class attendance, completion of requirements and/or co-op, and wishes a medical leave must first contact the University Health and Counseling Services Medical Leave Team.

Students who wish to reenter the University following a medical leave must contact the Medical Leave Team to initiate reentry no sooner than four or later than two weeks before the start of classes. The reentry process will be explained, the academic program notified, and a decision made within two weeks of receipt of all required documentation.

More specific procedures and information about the medical leave and reentry, along with the application for leave, can be found at www.uhcs.neu.edu.

## Leave of Absence Due to Military Deployment

When a student in the U.S. Reserves or in the National Guard is called to active duty or when an international student is called to active duty in his or her home country, the student must notify his or her college student services office and provide proof of deployment prior to being deployed. The proof may be faxed, mailed, or hand-carried to the college student services office, which will ensure that the information is conveyed to the registrar's office. It may take the form of general orders cut by the company commander.

When a student is activated during the semester, the University will:

- Excuse tuition for that semester. Any payment made will be credited to the student's account.
- Expunge the student's record of registration so that the student is not penalized for being called to active duty.

If a student is called to active duty near the end of the semester, the student and faculty members may determine that incomplete (I) grades are more appropriate. In this case, tuition will not be waived.

When a student returns to the University after completion of the tour of duty, he or she will notify the college student services office, which will in turn notify the registrar's office. The college student services office will assist the student with reentry and registration.

## Leave of Absence for International Students

International students should discuss maintenance of proper U.S. immigration status with an advisor at the International Student and Scholar Institute before requesting a leave of absence.

Academic Programs and Curriculum Guide

## NU CORE

In April 2006, Northeastern University adopted the NU Core, an institution-wide general education requirement. Northeastern faculty, administrators, and students worked together to identify a set of shared general education goals for all students in all majors. Our intention is to develop in our students the knowledge and skills to be lifelong learners with success in many careers, thoughtful global citizens, and fulfilled human beings. The NU Core is required for all freshmen entering in fall 2007 and later. It does not apply to students already admitted with a different set of core requirements or to transfer students whose entry year falls outside the NU Core implementation date.

## THE NU CORE REQUIREMENTS ARE:

- First-Year Learning Communities (a first-year experience)
- Knowledge Domains (four courses)
- Writing-Intensive Instruction (four courses)
- Mathematical/Analytical Thinking (two courses)
- Comparative Study of Cultures (one course)
- Integrated Experiential Learning (one course or approved activity)
- Capstone (one course)


## Description of NU Core Requirements

The entry-level NU core courses (comparative cultures, level 1 knowledge domains, first-year English, and level 1 mathematical/analytical thinking) and the experiential learning requirement involve exploring broad, new ways of thinking. To ensure the intended breadth, double counting of core requirements is not allowed among those domains. Some courses fit more than one of the entry-level categories, e.g., a knowledge domain category as well as the comparative study of cultures category. These courses are listed in both appropriate NU Core categories to give students more flexibility in how they select courses to meet requirements. However, a student cannot fulfill two of the entrylevel NU Core requirements by taking a single course.

The intermediate and advanced NU Core requirements involve more focused, in-depth experiences that sometimes can be combined effectively in one course, e.g., many capstone courses also satisfy the writing-intensive requirement, some level 2 mathematical/analytical thinking courses also satisfy the writingintensive requirement, some intermediate/advanced courses outside the major might also satisfy the comparative cultures requirement.

The following sections describe in greater detail the specific NU Core requirements:

## FIRST-YEAR LEARNING COMMUNITY

A linked set of two or more courses in the same semester in which students are cohort-registered; provides integration of subject matter and an opportunity for students and faculty with similar interests to become acquainted.

## KNOWLEDGE DOMAINS

Complete an approved introductory-level course in each of three level 1 knowledge domains listed below and a level 2 intermediate or advanced course outside the major department. Generally, one of the introductory-level courses also satisfies a requirement for the major.

## Arts/Humanities Level 1

Complete one approved course in arts/humanities level 1. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## Social Science Level 1

Complete one approved course in social science level 1. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## Science/Technology Level 1

Complete one approved course in science/technology level 1. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## Level 2 Elective

Complete one intermediate or upper-level course (generally level2000 or above) outside your major.

## COMPARATIVE STUDY OF CULTURES

Complete one approved course in comparative study of cultures or another approved approach, including study abroad. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## MATHEMATICAL/ANALYTICAL THINKING

Complete an approved introductory-level course in mathematical thinking and its application to posing and solving problems and an approved intermediate-level course in modes of thought that allow abstraction, application, and synthesis of information.

## Level 1

Complete one approved course in mathematical/analytical thinking level 1. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## Level 2

Complete one approved course in mathematical/analytical thinking level 2. Visit www.northeastern.edu/registrar/nucore.html for a list of current offerings.

## WRITING-INTENSIVE COURSES

Complete a first-year writing course and an advanced writing course provided by the English department and two approved writing-intensive courses in the majors, as described in greater detail below. Generally, the capstone course serves as one of the major-specific writing courses.

## CAPSTONE

Complete one approved capstone course within your major in the final semesters. This course acts as a final integrator of the major, general education, and experiential aspects of the student's education. Generally, this course also includes writing-intensive work and research or creative activity, and, in most cases, the
second writing-intensive-in-the-major requirement is satisfied by the capstone course. Visit www.northeastern.edu/registrar/ nucore.html for a list of current offerings.

## EXPERIENTIAL LEARNING

Complete one approved experiential learning activity with a reflective component, as described in greater detail below. Experiential learning opportunities are disbursed throughout each student's undergraduate education to encourage the development of seeing connections between course work and experiential learning. Students should consult their college or their major department for advice on approved activities.

## WRITING-INTENSIVE COURSES

The faculty expects all students to become effective writers. To this end, students are given opportunities to improve their writing throughout their curriculum.

## First-Year Writing Requirement

All first-year students must satisfy a first-year writing requirement. Students take a placement exam on the first day of class or may take an exam online before classes begin (by August 1 for the fall semester and by December 1 for the spring semester; see www.english.neu.edu/writingprograms/placement/). Depending on the results of the placement exam, students may satisfy the requirement in one of the following ways:

- ENGL 1111, College Writing
- ENGL 1110, Introductory College Writing plus ENGL 1111
- ENGL 1102, College Writing for Speakers of Other Languages
- ENGL 1101, Introductory Writing for Speakers of Other Languages plus ENGL 1102

In addition, depending on performance in ENGL 1110, the second half of the two-course sequence may be waived, as determined by the Department of English. Students must earn a C or better in the required writing course to satisfy the first-year writing requirement.

Note: ENGL 1101 and ENGL 1110 are not credited toward graduation in the College of Engineering.

## Advanced Writing Requirement

Once students have earned 56 semester hours of academic credit, they are expected to register for the second course of the University-wide requirement: Advanced Writing in the Disciplines (AWD). Students are encouraged to take AWD before they have accrued 96 semester hours. A variety of AWD courses are offered, and different courses satisfy the requirement for students in different colleges. In consultation with their advisor, students should choose the AWD course that best fits their needs from among the available options. (AWD sections for non-native speakers of English and international students are available.) Transfer credit cannot be used to satisfy this requirement. Students
must earn a C or better to satisfy the advanced writing requirement.

Please see the Writing Programs site for more details: www.english.neu.edu/writingprograms/.

## Attendance Requirements and Other Policies

Writing program policy requires regular attendance at class meetings. Students are allowed three unexcused absences, i.e., class cuts, in classes that meet for three days a week; they are allowed two unexcused absences in classes that meet for two days. During the summer sessions, students are allowed two unexcused absences. Please see pages 14-15 for University policy regarding attendance requirements and excused absences and http://www.english.neu.edu/writingprogram/writing_program/ for all other policies governing first-year writing and AWD.

## Writing-Intensive Courses in the Major

Each major includes at least two additional writing-intensive courses. These courses are characterized by frequent and regular writing, assessment and revision of student work, and the opportunity for students to improve their work.

## EXPERIENTIAL LEARNING

Experiential learning offers the opportunity for an education that is richer and more meaningful, providing students with experiences that add depth to their classroom studies and enable them to explore and transform their lives. Experiential learning is tightly integrated with our course curriculum and is supported by advising in the majors as well as advising in the experiential learning group.

The primary ways in which the experiential learning requirement may be satisfied are:

- Cooperative education
- Research or creative activity
- Service-learning
- Global experience

Only one learning experience outside the classroom is required for the NU Core. However, students have many additional opportunities for further experiential learning.

Integration of course work and experiential learning occurs in the required capstone course, as well as in earlier guided opportunities linking concepts from major courses, NU Core courses, and experiential learning.

## COOPERATIVE EDUCATION

www.northeastern.edu/coop

Cooperative education is the cornerstone of Northeastern University's experiential learning approach, in which academic study is enhanced by hands-on experience. Through co-op, students alternate periods of academic study with periods of employment in positions related to their academic or career interests. This combination provides an integrated learning experience that enhances both their studies and career development. Full-time undergraduates may complete up to three six-month co-ops in five years at Northeastern. (The design of some programs, such as nursing, pharmacy, and theatre, requires four-month co-ops.) Four-year options with one co-op and without co-op are also available.

## Co-op Eligibility

Every student must meet the following eligibility requirements in order to participate in co-op. These are general requirements for all students; however, students must work closely with their cooperative education coordinator to ensure that they meet any college- or major-specific requirements and are aware of majorspecific logistics, deadlines, and required paperwork. In accordance with U.S. federal regulations, international students must not begin or resume any co-op experience without first receiving employment authorization from the International Student and Scholar Institute (ISSI).

## GENERAL REQUIREMENTS

Students must:

- Take and pass a preparatory course before going out on co-op.
- Satisfactorily complete the requirements and deadlines set by their specific co-op program.
- Register for co-op, either through their division pattern or through a division change, which must be approved by their cooperative education coordinator and academic advisor.
- Have received a Satisfactory (S) grade and have resolved any outstanding Incomplete (X) grades for previous co-ops. Students who have received an Unsatisfactory (U) grade must work with their cooperative education coordinator to reestablish eligibility in accordance with the policies and requirements of their program.
- Resolve any previous disciplinary or academic probation issues, or have their cooperative education coordinator approve a plan to resolve these issues, prior to being referred to co-op jobs.
- Have any self-developed co-op approved by their cooperative education coordinator before accepting the position.
- Comply with any preemployment checks required by the employer, such as drug testing, credit checks, physical examinations, security clearance, and criminal record checks.


## ACADEMIC REQUIREMENTS

## Students must:

- Be making satisfactory progress toward their degree as defined by the University, their colleges, and the curricula in their major programs.
- Have a cumulative 2.000 GPA to be eligible to go on domestic co-op or a 2.750 GPA to be eligible for international co-op at the time they apply for a co-op position.


## TRANSFER STUDENTS

Transfer students from other universities must have met the same requirements in their major's co-op program as nontransfers and must have completed at least one semester of classes before doing co-op. Students transferring from one major to another within Northeastern must have completed the requisite courses and requirements as defined by their current major's co-op program.

## APPEALS PROCESS

If a student does not meet the co-op eligibility requirements and/or their cooperative education coordinator has determined they are ineligible to go on co-op, they may appeal to the director of cooperative education for their college. If the matter cannot be resolved informally, they may appeal the decision to the college academic standing committee.

## International Co-op

The International Cooperative Education Program provides students with an opportunity to explore global career options, develop intercultural and political sensitivity, and utilize and strengthen foreign language skills. Northeastern students co-op on six continents with foreign and multinational employers, U.S. employers doing business abroad, and other international organizations. Students may apply for existing positions or work with an international co-op counselor to develop their own. All majors are welcome to apply. International students participating in co-op abroad should consult with the ISSI in advance of departure in order to ensure reentry to the United States in proper nonimmigrant visa status.

## Registering for Co-op

Students register for co-op during the semester prior to the one when they plan to be on co-op. Just as for an academic course, they can register through the myNEU Web Portal (www.myneu.neu.edu). All co-op placements need to be approved by a co-op coordinator.

## Co-op Documentation

Students who fully and successfully participate in co-op will receive a grade of Satisfactory; those who fail to complete their co-op assignment will receive a grade of Unsatisfactory. These grades will appear on the student's academic transcript. However, no academic credit is awarded for the completed co-op assignment.

## Further Information

For more detailed information about co-op policies and procedures, please see the Cooperative Education Student Handbook.

## RESEARCH AND CREATIVE ACTIVITY

www.research.neu.edu/students

Pursuing research at the university level makes our students knowledge creators and develops their teamwork skills, and the discipline of mind that research requires is one of the best ways to learn to think critically. With dozens of majors and minors, many interdisciplinary research centers and institutes, and more than six hundred full-time faculty engaged in active research and scholarship, Northeastern offers countless opportunities for students to apply their classroom learning to the process of discovery.

Undergraduate students can participate in research and creative activity in a variety of formats, including the following: research courses, which generally fulfill major elective requirements; research co-ops or internships; community-based research; research-based activity as the option for work-study work; research as a volunteer activity; and junior/senior honors research projects.

Undergraduate students can apply for support for their research projects from the University-wide Provost's Undergraduate Research Fund and from a number of other offices and programs. They often present their research findings at Northeastern's annual Research and Technology Expo, as well as at academic conferences and in scholarly journals.

## SERVICE-LEARNING

www.northeastern.edu/communityservice/services/ servicelearning.html

Community service is part of Northeastern's urban mission. But more than good works, community service through structured service-learning programs on our campus is an academically rigorous educational experience that allows students to broaden their knowledge and skills through service that supports our partnerships with Boston schools, neighborhood agencies, health clinics, and nonprofit organizations.

Students participate in organized service projects, coordinated by their professor and/or a program director, which meet needs identified by the community. Before, during, and after their service, students also engage in structured reflection to help them gain further insight into course or program content, a broader appreciation of their academic discipline, and a greater sense of civic responsibility.

## GLOBAL EXPERIENCE

www.oisp.neu.edu
Office: Office of International Study Programs, 10 Belvedere Phone: 617.373.5276
Fax: 617.373.5702
E-mail contact: studyabroad@neu.edu or Dawn Anderson, Director, da.anderson@neu.edu

Northeastern University strongly endorses global experience as an important dimension of learning. To foster this, it maintains an Office of International Study Programs that has developed a series of programs tailored to the interests and needs of Northeastern University students.

## International Study Programs

While studying abroad in a Northeastern-sponsored program, students maintain full-time Northeastern status and earn Northeastern credits. In all cases and upon successful completion of the program, grades are calculated into students' GPA. The minimum requirements for participation are at least 56 semester hours of credit and a GPA of at least 2.200 that also meets the requirement of the host institution abroad. The application deadlines are posted on the Office of International Study Programs' Web site on the "Applying" page.

Students who wish to study abroad should start by researching program opportunities online at www.oisp.neu.edu or by consulting their departmental or college advisors. Information sessions are offered regularly by the Office of International Study Programs in 301 Ell Hall. Advisors in the Office of International Study Programs provide the final planning assistance. Schedules for information sessions and advisors are posted online and in 10 Belvedere.

Northeastern University offers four types of study-abroad programs, although not all types are appropriate for some majors. Please see below for a complete list of current study-abroad locations.

Traditional. Students are based at a host institution where they attend classes, participate in student activities, and organize their extracurricular schedules just as they do on campus at Northeastern. Some examples include Monash University in Melbourne, Australia; University of Edinburgh in Scotland; and Obirin University in Tokyo, Japan.

Faculty-Led Summer Programs. Open to Northeastern University students of any major, the Dialogue of Civilizations Program is a series of "global student exchanges" between students at Northeastern University and students around the world. The goal of each program is (a) to connect NU students with their peers in different national, cultural, political, and social environments and (b) to provide NU students with a "global experience" that builds upon and enhances their academic studies and training in Boston.

Internship. These programs offer a combination of classes and related work experience for which students earn academic credit. For example, students typically intern with a member of the Australian Parliament in Canberra, the European Parliament in Brussels, the British Parliament in London, or the Irish Parliament in Dublin.

International Research. The focus of a student's time abroad is on an independent research project. In most cases, the studyabroad program organizes small group seminars and field trips that are designed to help students learn about their international environment and focus on a research topic. Students spend three to four weeks toward the end of the semester working on their individual projects. An example could be studying tropical biology in Costa Rica, history and culture in Vietnam, and oceanography while sailing in the Atlantic/Pacific Cruise Track of the SEA Semester Program.

NU Core and Major Requirements. An NU-sponsored studyabroad experience or a faculty-led summer program may fulfill the NU Core requirement for comparative study of cultures or experiential learning. A student cannot fulfill both the comparative study of cultures requirement and any other NU Core requirement by taking a single course (or completing a single global experience). Thus, each student successfully completing an approved program could elect to use it to satisfy either the comparative cultures or experiential learning NU Core requirement but could not satisfy both requirements with one experience. For the international affairs major, study abroad also fulfills the international experience requirement. Students may fulfill additional requirements, depending upon their individual academic plan and approval by their advisor.

Following is a sample list of locations where students can study abroad:
Argentina, Buenos Aires Universidad del Salvador
Atlantic/Pacific Cruise Track Woods Hole SEA Semester
Australia, Canberra Australia National University
Australia, Gold Coast
Australia, Melbourne
Australia, Perth
Australia, Sydney
Belgium, Leuven

Canada, Vancouver
Chile, Santiago

China, Beijing

China, Hong Kong

Costa Rica, Monteverde

| Costa Rica, San Jose | International Center |
| :--- | :---: |
|  | for Sustainable |
| Czech Republic, Prague | Human Development |
| Dominican Republic, | Pontificia Universidad Católica |
| Santiago | Madra y Maestra |
| Dominican Republic, | Facultad Latinoamericana de |
| Santo Domingo | Ciencias Sociales |
| Egypt, Cairo | American University of Cairo |
| France, Grenobles | Centre Universitaire d'Études |
|  | Françaises (API) |
| France, Paris | American University of Paris |
| Ghana, Legon | University of Ghana |
| Greece, Thessaloniki | American College |
|  | of Thessaloniki |
| Ireland, Dublin | Institute of Public |
|  | Administration |
| Italy, Florence | Studio Art Centers International |
| Italy, Perugia | Umbra Institute |
| Italy, Rome | American Institute |
|  | for Roman Culture |
| Japan, Tokyo | Obirin University |
| Mexico, Puebla | Universidad de las |
| New Zealand, Auckland | Américas-Puebla |
| New Zealand, Christchurch | University of Auckland |
| South Africa, Cape Town | University of Canterbury |
| Spain, Alicante | University of Cape Town |
| Spain, Seville | University of Alicante |
| UK: England, Cambridge | University of Cambridge |
| UK: England, London | Goldsmith's College |
| UK: England, London | Hansard Society at London |
| UK: Northern Ireland, Belfast | Queens University |
| UK: Scotland, Edinburgh | University of Edinburgh |
|  |  |

To see a complete list of program options, visit www.oisp.neu.edu.

## WORLD LANGUAGES CENTER

Dennis R. Cokely, PhD
Director

Office: 400 Meserve Hall
Phone: 617.373.2234
Fax: 617.373.3065
E-mail contact: Dennis R. Cokely, Director, d.cokely@neu.edu

The World Languages Center (WLC) is a cooperative venture between the College of Arts and Sciences and the College of Professional Studies. The primary goal of the WLC is to offer an expanding array of languages in a variety of instructional formats
for Northeastern students and to ensure that students will be able to take at least two years of instruction (four semesters) in any language offered by the WLC.

## Placement Assessment

Students with prior experience in French, German, or Spanish must take the online written placement exam if they wish to enroll in a French, German, or Spanish language class. The link for this exam can be found on the WLC or the Languages, Literatures, and Cultures Web site. Students with prior experience in any other language should contact the WLC to make an appointment for a placement assessment interview. Results of a student's placement online or interview assessments are valid for one year only.

Any student with prior experience in a language who registers for a language class without taking the WLC online placement test or a WLC placement assessment will not receive a letter grade for that course.

## Attendance in Language Classes

The development of competence in a language requires regular and structured interaction opportunities. Thus, the WLC takes attendance in language classes very seriously. Each missed class will have specific consequences and will have a negative impact on a student's final grade. Thus, attendance in class is a matter of great significance. Because the number of students in a class is limited, a student's absence (and presence) will be noted. Because of the interactive nature of language instruction, students cannot make up missed classroom interactions. Students should be aware that they are graded on active participation in class, not simply attendance. Routine tardiness in a class will also have negative consequences. Regular and enthusiastic participation and involvement in the class is expected.

No more than three (3) unexcused absences are permitted, after which each absence results in points deducted from the final point average used to determine a student's final letter grade. Classes missed as a result of registering late for a class will count as unexcused absences; if students believe they have been misplaced in a language class, they should consult the WLC immediately.

## Auditing Language Classes

Auditing language classes is not permitted. Students who are not on the official roster of a class may not sit in on the class and will be asked to leave by the end of the first week of classes.

## Immersion Language Classes

The WLC offers off-campus language immersion classes in a variety of languages. These immersion classes are numbered 1301, $1302,2301,2302,3301$, and 3302 and are designed to be part of a faculty-led study trip. Typically, these classes are offered during Summer 1 and Summer 2 terms. These courses will count toward fulfillment of the College of Arts and Sciences BA language requirement, assuming a student receives a grade of C or better.

## Study-AwayIAbroad Classes

The WLC will authenticate credit-bearing language classes taken in study-away/abroad programs at accredited institutions in fulfillment of and as equivalent to WLC language classes numbered 1101, 1102, 2101, or 2102. Students should receive approval of language course equivalence from the WLC before embarking on a study-away/abroad program. Failure to do so may mean that the courses taken away/abroad will not be accepted in lieu of on-site Northeastern language courses and thus may not satisfy the language requirement. Credit is only granted for successful completion of the course.

## BSIB Language Classes

The Bachelor of Science in International Business program is offered through the College of Business Administration. Because of the intensive expectations of the program (one semester in classes abroad, one semester international co-op), the WLC offers classes that are restricted to BSIB students only. These courses are numbered 1201, 1202, 2201, 2202, 3201, 3202, 4201, and 4202. Only BSIB majors may enroll in these BSIB-designated courses.

## UNIVERSITY HONORS PROGRAM

www.honors.neu.edu

Maureen Kelleher, PhD
Director

Office: 150 West Village F
Phone: 617.373.2333
Fax: 617.373.5300
E-mail contact: Maureen Kelleher, Director, m.kelleher@neu.edu

The University Honors Program is designed to provide a rich academic experience that fosters intellectual development and achievement. The program offers honors course options for fulfilling a number of the University-wide NU Core requirements: introductory and intermediate/advanced knowledge domain courses; comparative study of cultures courses; writing-intensive courses (ENGL 1111 and ENGL 3301); and entry-level mathematics. The program partners with campus departments to provide additional honors opportunities. During the first year, students participate in the First Year Reading Project; take HONR 1101 ("Enhancing Honors"), a course team-taught with upperclass mentors; can choose from a selection of honors courses targeted to the first-year experience; and enroll in a variety of small, selected honors sections. Interdisciplinary honors seminars are offered to sophomores and middlers. Juniors and seniors complete an honors project that typically involves an independent research project or a set of courses designed for upperclass honors students. In addition, upperclass students may take honors credits in independent study and as honors teaching assistants.

The program sponsors cultural opportunities such as theatre, ballet, and music. The honors experience also includes special housing opportunities in International Village for first-year students and in West Village F for upperclass students. The Honors Program office in 150 West Village F includes a multipurpose computer lab/lounge and a conference room for student use.

Honors students may earn up to three Honors Program distinctions: Honors Course Distinction, College Honors Project Distinction, and University Honors Program Distinction. Entering freshmen are invited to join based on a combination of their high school academic preparation, SAT/ACT scores, and leadership record. Current students are eligible to apply as second-semester freshmen or rising sophomores with a 3.600 or better cumulative average. Juniors and seniors may join if they have a faculty member prepared to sponsor their Junior/Senior Honors Project.

PREMEDICAL AND OTHER PREPROFESSIONAL HEALTH CAREER PREPARATION
www.premed.neu.edu

## Premedical Studies

Because medical schools place a priority on well-rounded achievement, the premed course requirements can be integrated into any major at Northeastern. Most medical school admissions committees give no preference to any particular undergraduate major. Instead, students should focus on meeting the course requirements of their chosen majors, together with the premedical requirements, with demonstrated academic rigor and excellence. The Premed Advising Program provides support for students from all majors who are planning to pursue doctoral-level training in medicine (including dentistry, optometry, osteopathy, podiatry, and veterinary medicine as well as MD programs).

In certain fields of medicine, scheduling all of the required courses and their prerequisites may be difficult for nonscience majors. Students interested in pursuing postgraduate degrees in dentistry, optometry, or veterinary medicine should be aware that these programs generally require additional courses beyond the minimum listed below and that these requirements tend to be more variable than for MD, osteopathy, or podiatry programs. All premedical students should research requirements and plan their program of study early in their academic career at NU in consultation with both major and premedical advisors to ensure that required courses will be completed in a timely fashion.

## Prerequisite Courses

Most medical schools require a common set of science courses. The following Northeastern University courses are recommended:

## BIOLOGY

Complete a lecture and lab for both Biology 1 and Biology 2:
Biology 1

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| Biology 2 |  |  |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |

## CHEMISTRY

General Chemistry
Complete the following two courses with corresponding labs:

| CHEM 1211 | General Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |

## Organic Chemistry

Complete the following two courses with corresponding labs:
CHEM $2311 \quad$ Organic Chemistry 1 SH
with CHEM 2312 Lab for CHEM 23111 SH
CHEM 2313 Organic Chemistry 2 SH
with CHEM 2314 Lab for CHEM 23131 SH

## PHYSICS

Complete a lecture and lab for both Physics 1 and Physics 2:
Physics 1

| PHYS 1145 | Physics for Life Sciences 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1146 | Lab for PHYS 1145 | 1 SH |
| or PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| Physics 2 |  |  |
| PHYS 1147 | Physics for Life Sciences 2 | 4 SH |
| with PHYS 1148 | Lab for PHYS 1147 | 1 SH |
| or PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## MATHEMATICS

Complete one of the following sets of mathematics courses:

| MATH 1241 | Calculus 1 | 4 SH |
| :--- | :--- | :--- |
| and MATH 1242 | Calculus 2 | 4 SH |
| or MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| and MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| or MATH 1130 | College Math for Business and <br> Economics | 4 SH |
| and MATH 1231 | Calculus for Business and Economics | 4 SH |

or MATH 1341<br>Calculus 1 for Science and Engineering<br>and MATH 1342 Calculus 2 for Science and Engineering

Additional courses may be required or suggested by some schools. Students should refer to individual medical school Web sites as well as the appropriate official admissions guidebook for up-todate information: ADEA Official Guide to Dental Schools (www.adea.org/); College Information Book (www.aacom.org/); Colleges of Podiatric Medicine Admissions Requirements (www.aacpm.org/); Medical School Admissions Requirements (www.aamc.org); Schools and Colleges of Optometry Admissions Requirements (www.opted.org/); or Veterinary Medical School Admissions Requirements (www.aavmc.org).

## BA/MD Early Acceptance Program at Tufts University School of Medicine

Tufts University School of Medicine offers an early acceptance program for eligible students at participating institutions. In addition to Northeastern University, institutions currently participating in this program are: Tufts University, Brandeis University, Boston College, and the College of the Holy Cross.

## PRELAW PREPARATION

## www.neu.edu/prelawl

Northeastern University adopts in full the statement of the American Bar Association on its "Preparing for Law School" page of its Web site (www.abanet.org/legaled/prelaw/prep.html):

There is no single path that will prepare students for a legal education. Students who are successful in law school, and who become accomplished professionals, come from many walks of life and educational backgrounds. Some law students enter law school directly from their undergraduate studies without having had any post-baccalaureate work experience. Others begin their legal education significantly later in life, and they bring to their law school education the insights and perspectives gained from those life experiences. Legal education welcomes and values diversity and students will benefit from the exchange of ideas and different points of view that your colleagues will bring to the classroom.

The primary goal of the Prelaw Program at Northeastern is to assist current students, staff, and alumni in navigating the law school application process. This includes identifying and researching a variety of law schools to which the person may want to apply. For current NU students, the Prelaw Program will provide academic advising that will guide course selection and activities aimed at maximizing the student's chance of being admitted to law school. These courses must have at least one, and preferably more, core skill and values such as: analytic/problem-
solving skills, critical reading, writing skills, oral communication/listening abilities, general research skills, task organization/management skills, public service, and promotion of justice.

ROTC, MILITARY OFFICERS' TRAINING PROGRAM
www.rotc.neu.edu

The Department of Military Science offers the Army Reserve Officers' Training Corps (ROTC) program. The goal of the program is to develop leadership potential in men and women and to prepare them for an officer's commission in the Active Army, Army Reserve, or Army National Guard. The curriculum teaches principles of leadership and personnel management and seeks to develop leadership traits such as teamwork, responsibility, initiative, self-confidence, and discipline.

## Army ROTC Program

Gary M. Soldato, LTC, MS
Professor and Chair, Department of Military Science

Office: 335A Huntington Avenue
Phone: 617.373.2375
Fax: 617.373.8677
E-mail contact: CPT John O’Brien, Operations Officer, j.obrien@neu.edu

The Army ROTC program is conducted at Northeastern University. For more information, write the Department of Military Science, Northeastern University, 335A Huntington Avenue, Boston, MA 02115, or call 617.373.2372.

Completion of the Army ROTC program will lead to a commission as a second lieutenant in the United States Army, Army Reserve, or the Army National Guard. The program consists of the basic course (freshman and sophomore years) and advanced course (middler through senior years). The program does not conflict with co-op schedules.

Enrollment in the basic course is voluntary and is open to all full-time students. However, only cadets formally enrolled in ROTC may participate in leadership labs, physical training, and practical field exercises. Students in the basic course do not incur a military obligation. Check with your academic department to ensure credits are accepted.

The advanced course is open to all qualified students who have basic course credit or equivalent military experience, as well as meet the Army's physical, medical, and age requirements. Contracted students (advance course and scholarship) receive a monthly cash stipend while in school. Scholarship students also receive full tuition and fees as well as $\$ 1,200$ per year for books. Scholarships are merit based and are awarded as four-year, threeyear, or two-year benefit packages.

In addition to ROTC classes, students have the opportunity to achieve an academic minor in leadership. See "Leadership Studies" on page 46.

## Army Nurse Corps ROTC Program

ROTC provides an opportunity for college nursing students to receive practical, hands-on leadership experience. The courses provide a chance for students to develop management, communication, and decision-making skills. ROTC also provides nursing cadets an opportunity to participate in the Nurse Summer Training Program (NSTP). NSTP is a paid, three-to-four-week, hands-on clinical elective for Army ROTC nurse cadets. This elective is conducted at more than twenty Army hospitals in the continental United States, Hawaii, and Germany. During the NSTP clinical elective, the cadet receives experience under the direct supervision of a preceptor-an Army Nurse Corps officer who works with the cadet one-on-one. Scholarship nurse cadets receive a monthly cash stipend while in school as well as full tuition and fees and \$1,200 per year for books.

## Navy ROTC Program

The Boston Navy ROTC unit is a six-school consortium that includes students from Boston University, Boston College, Northeastern, Tufts, Harvard, and MIT. All Navy ROTC scholarships are for nursing only and cover full tuition, mandatory fees, a $\$ 375$ per semester book stipend, and a $\$ 250$ per month living stipend that increases by $\$ 50$ each year. For students on Northeastern's five-year program, the Navy grants "Fifth Year Benefits," which mirror those of the fourth year. Upon graduation, there is a four-year active-duty commitment.

NROTC nursing students are required to take four naval science classes, in addition to their regular course work, and attend a leadership laboratory once a week. All classes, labs, and group workouts are conducted at Boston University. Students typically spend a total of six to eight hours per week participating in NROTC-related activities. Additionally, Navy nurses complete two summer cruises, or training sessions, prior to graduation, each of which lasts approximately four weeks. They spend one session with a medical unit at sea (on a Navy ship) and one session at a land-based Navy hospital. All lodging, transportation, meals, and uniforms are paid for by the Navy during summer training sessions. For more information, contact Lt. Lauren Majchrzak at 617.353.4232 or lbw@bu.edu.

## Air Force ROTC Program

Air Force ROTC is an educational and leadership program designed to give men and women the opportunity to become an Air Force officer while completing a bachelor's or master's degree.

Through a cross-enrolled program with Boston University, interested Northeastern University students may participate in the Air Force Reserve Officer Training Corps Program. The requirements include yearly aerospace studies classes, leadership
laboratory classes, and physical fitness training. The mandatory weekly commitments range from five to seven hours per week.

In addition to the leadership and management training that cadets receive, they also benefit from several scholarship programs. High school seniors can apply for four- and three-year scholarships plus fees. The scholarships range from full tuition, $\$ 15,000$ per year, and $\$ 9,000$ per year. Scholarship winners will also receive a monthly stipend, a book allowance, and uniforms. Applications for scholarships are due by December 1 of senior year.

Freshmen and sophomores already in college can compete for two-, three-, and three-and-a-half-year scholarships, some of which cover full tuition, while others cover $\$ 15,000$ per academic year. All scholarship winners will receive a monthly stipend, a book allowance, and uniforms.

However, students do not need a scholarship to join Air Force ROTC. Meeting physical fitness, medical qualifications, and the Air Force Officer Qualifying Test requirements are the only necessary requirements to participate in Air Force ROTC. For more information, call 617.353.4705.

## ABOUT SAMPLE CURRICULA

The University's official repository of curricular information is the Degree Audit Reporting System. The curricula published on the following pages are derived from the Degree Audit Reporting System. In case of discrepancy, the Degree Audit Reporting System shall take precedence. Consult with your academic advising office, listed below, to make certain you have all the necessary resources before planning your own curriculum.

## College of Arts and Sciences

Dean's Office
Dean's Office Advisors
Academic Program Offices
African-American Studies
American Sign Language-
English Interpreting
Architecture
Art + Design
Behavioral Neuroscience
Biochemistry
Biology
Chemistry and Chemical Biology
Cinema Studies
Communication Studies
Creative Industries
(Game Design
and Interactive Media)
Earth and Environmental Sciences
Economics

100 Meserve Hall
1 Meserve Hall

132 Nightingale Hall
405 Meserve Hall

151 Ryder Hall
239 Ryder Hall
422 Richards Hall
134 Mugar Life
Sciences Building
134 Mugar Life
Sciences Building
102 Hurtig Hall
225 Holmes Hall
101 Lake Hall
239 Ryder Hall

14 Holmes Hall
301 Lake Hall

| Education | 26 Nightingale Hall |
| :--- | :--- |
| English | 406 Holmes Hall |
| Environmental Studies | 14 Holmes Hall |
| History | 249 Meserve |
| Human Services | 587 Holmes Hall |
| Interdisciplinary Studies | 1 Nightingale Hall |
| International Affairs | 270 Holmes Hall |
| Journalism | 102 Lake Hall |
| Languages, Literatures, and Cultures | 400 Meserve Hall |
| Linguistics | 563 Holmes Hall |
| Mathematics | 567 Lake Hall |
| Music | 351 Ryder Hall |
| Philosophy and Religion | 371 Holmes Hall |
| Physics/Applied Physics/ | 111 Dana Research |
| $\quad$ Biomedical Physics | Center |
| Political Science | 301 Meserve Hall |
| Psychology | 125 Nightingale Hall |
| Sociology and Anthropology | 500 Holmes Hall |
| Theatre | 180 Ryder Hall |
| Bouvé College of Health Sciences | 120 Behrakis Health |
|  | Science Center |
| College of Business Administration | 250 Dodge Hall |
| College of Computer and | 202 West Village H |
| Information Science |  |
| College of Criminal Justice | 204 Churchill Hall |
| College of Engineering | 220 Snell Engineering |
|  | Center |
| World Languages Center | 400 Meserve Hall |
|  |  |

## Special Notes

- One semester hour of credit is equal to fifty minutes of instruction per week, plus two hours of preparation.
- The Office of the Registrar, 120 Hayden Hall, maintains the official record for all courses. In the event of error in any publication, the academic record will reflect the correct semester-hours applicable to any degree requirement.
- On occasion, course titles change, while the course number remains the same. Despite such title changes, the course is still considered to be the same course. Students who have taken the course under the old title and then take the course again under the new title are considered to have repeated the course.


## UNDERGRADUATE COURSE NUMBERING SYSTEM

Every semester course number at Northeastern University consists of two parts:

- A two- or four-letter subject code
- A four-digit number

For example, in the course number ECON 1115, ECON is the subject code, and 1115 is the four-digit number.
The four-digit number indicates the level of th
as follows:
0001-0999
Orientation and basic
1000-1999
2000-2999 Introductory level 1 Intiate level 1

## UNDERGRADUATE DEGREES

Listed below are the degrees conferred by the undergraduate fulltime day colleges at Northeastern University.

## College of Arts and Sciences

Bachelor of Arts
Bachelor of Fine Arts
Bachelor of Science

## Bouvé College of Health Sciences

Bachelor of Science
Bachelor of Science in Nursing
Bachelor of Science in Rehabilitation Science
Doctor of Pharmacy (six-year program)
Doctor of Physical Therapy (six-year program)
College of Business Administration
Bachelor of Science in Business Administration Bachelor of Science in International Business

## College of Computer and Information Science

Bachelor of Arts in Computer Science
Bachelor of Science in Computer Science
Bachelor of Science in Information Science
Bachelor of Science (dual majors only)

## College of Criminal Justice

Bachelor of Science

## College of Engineering

Bachelor of Science in Chemical Engineering Bachelor of Science in Civil Engineering
Bachelor of Science in Computer Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Industrial Engineering
Bachelor of Science in Mechanical Engineering

## MAJORS AND CONCENTRATIONS

Listed below are the majors and, where applicable, concentrations offered by the undergraduate full-time day colleges at Northeastern University. In some cases, the academic area under which the major is listed in this catalog is indicated parenthetically.

## College of Arts and Sciences

African-American Studies
American Sign Language
Anthropology, Cultural (listed under Sociology
and Anthropology)
Applied Physics (listed under Physics)
Architecture
Art (listed under Art + Design)
Art, Digital (listed under Art + Design)
Art, Studio (listed under Art + Design)
Asian Studies
Behavioral Neuroscience
Biochemistry
Biology
Concentration in Marine Biology
Biomedical Physics (listed under Physics)
Chemistry
Communication Studies Concentration in Media Studies Concentration in Organizational Communication Concentration in Public Advocacy and Rhetoric
Cultural Anthropology (listed under Sociology and Anthropology)
Digital Art (listed under Art + Design)
Economics
English
Environmental Science (listed under Earth and
Environmental Sciences)
Concentration in Environmental Geology Concentration in Marine Science Concentration in Surficial Processes Concentration in Wildlife Studies
Environmental Studies
Graphic Design (listed under Art + Design)
History Concentration in Public History
Human Services
International Affairs
Journalism
Languages, Spanish (listed under Languages, Literatures, and Cultures)
Linguistics
Mathematics
Music
Concentration in Music History and Analysis Concentration in Music Industry Concentration in Music Technology

Philosophy (listed under Philosophy and Religion)
Concentration in Law and Ethics
Concentration in Religious Studies
Physics
Physics, Applied (listed under Physics)
Physics, Biomedical (listed under Physics)
Political Science
Concentration in International and Comparative Politics
Concentration in Law and Legal Issues
Concentration in Public Policy and Administration
Psychology
Religious Studies (listed under Philosophy and Religion)
Sociology (listed under Sociology and Anthropology)
Spanish (listed under Languages, Literatures, and Cultures)
Studio Art (listed under Art + Design)
Theatre
Concentration in Performance
Concentration in Production

## DUAL MAJORS

American Sign Language and Human Services (listed under American Sign Language)
American Sign Language and Psychology (listed under American Sign Language)
American Sign Language and Theatre (listed under American Sign Language)
Biology and Environmental Geology (listed under Biology)
Biology and Geology (listed under Biology)
Biology and Mathematics (listed under Biology)
Chemical Engineering and Physics (listed under Chemical Engineering)
Cinema Studies and Communication Studies (listed under Cinema Studies)
Cinema Studies and English (listed under Cinema Studies)
Cinema Studies and Journalism (listed under Cinema Studies)
Cinema Studies and Languages, Literatures, and Cultures (listed under Cinema Studies)
Cinema Studies and Philosophy (listed under Cinema Studies)
Cinema Studies and Theatre (listed under Cinema Studies)
Computer Science and Biology (listed under Computer and Information Science)
Computer Science and Cognitive Psychology (listed under Computer and Information Science)
Computer Science and Digital Art (listed under Computer and Information Science)
Computer Science and Environmental Science (listed under Computer and Information Science)
Computer Science and Game Design (listed under Computer and Information Science)
Computer Science and Interactive Media (listed under Computer and Information Science)
Computer Science and Mathematics (listed under Computer and Information Science)
Computer Science and Music with Concentration in Music Technology (listed under Computer and Information Science)

Computer Science and Physics (listed under Computer and Information Science)
Digital Art and Game Design (listed under Art + Design)
Digital Art and Interactive Media (listed under Art + Design)
Economics and Mathematics (listed under Economics)
Electrical Engineering and Physics (listed under Electrical and Computer Engineering)
Environmental Geology and Chemistry (listed under Earth and Environmental Sciences)
Environmental Geology and Environmental Studies (listed under Earth and Environmental Sciences)
Environmental Geology and Mathematics (listed under Earth and Environmental Sciences)
Environmental Geology and Physics (listed under Earth and Environmental Sciences)
Environmental Studies and History (listed under Environmental Studies)
Environmental Studies and International Affairs (listed under Environmental Studies)
Environmental Studies and Philosophy (listed under Environmental Studies)
Environmental Studies and Political Science (listed under Environmental Studies)
Geology and Chemistry (listed under Earth and Environmental Sciences)
Geology and Mathematics (listed under Earth and Environmental Sciences)
Geology and Physics (listed under Earth and Environmental Sciences)
Graphic Design and Game Design (listed under Art + Design)
Graphic Design and Interactive Media (listed under Art + Design)
Human Services and Criminal Justice (listed under Human Services)
Human Services and International Affairs (listed under Human Services)
Information Science and Cognitive Psychology (listed under Computer and Information Science)
Information Science and Environmental Science (listed under Computer and Information Science)
Interactive Media and Music with Concentration in Music Technology (listed under Creative Industries)
International Affairs and Anthropology (listed under International Affairs)
International Affairs and Economics (listed under International Affairs)
Jewish Studies and Religion (listed under Jewish Studies)
Languages, Literatures, and Cultures and International Affairs (listed under Languages, Literatures, and Cultures)
Linguistics and English (listed under Linguistics)
Linguistics and Psychology (listed under Linguistics)
Mathematics and Physics (listed under Mathematics)
Physics and Philosophy (listed under Physics)
Political Science and Economics (listed under Political Science)

Political Science and International Affairs (listed under Political Science)
Psychology and Education (listed under Psychology)

## Bouvé College of Health Sciences

Health Science
Nursing
Pharmacy
Physical Therapy
Speech-Language Pathology and Audiology

## College of Business Administration

## CONCENTRATIONS

Accounting
Entrepreneurship and Innovation
Finance
International Business (BSIB only)
Management
Management Information Systems
Marketing
Supply Chain Management

## DUAL MAJORS

Computer Science and Business Administration (listed under Computer and Information Science)
Information Science and Business Administration (listed under Computer and Information Science)

## College of Computer and Information Science

Computer Science
Information Science

## DUAL MAJORS

Computer Science and Biology (listed under Computer and Information Science)
Computer Science and Business Administration (listed under Computer and Information Science)
Computer Science and Cognitive Psychology (listed under Computer and Information Science)
Computer Science and Digital Art (listed under Computer and Information Science)
Computer Science and Environmental Science (listed under Computer and Information Science)
Computer Science and Game Design (listed under Computer and Information Science)
Computer Science and Information Science (listed under Computer and Information Science)
Computer Science and Interactive Media (listed under Computer and Information Science)
Computer Science and Mathematics (listed under Computer and Information Science)
Computer Science and Music with Concentration in Music Technology (listed under Computer and Information Science)

```
Computer Science and Physics (listed under Computer and
    Information Science)
Information Science and Business Administration (listed under
    Computer and Information Science)
Information Science and Cognitive Psychology (listed under
    Computer and Information Science)
Information Science and Environmental Science (listed under
    Computer and Information Science)
```


## College of Criminal Justice

## Criminal Justice

## DUAL MAJOR

Human Services and Criminal Justice (listed under Human Services)

## College of Engineering

```
Chemical Engineering
Civil Engineering (listed under Civil and Environmental
    Engineering)
Computer Engineering (listed under Electrical and Computer
    Engineering)
Electrical Engineering (listed under Electrical and Computer
    Engineering)
Electrical/Computer Engineering (listed under Electrical and
        Computer Engineering)
Industrial Engineering (listed under Mechanical and Industrial
    Engineering)
Mechanical Engineering (listed under Mechanical and Industrial
    Engineering)
```


## DUAL MAJORS

```
Chemical Engineering and Physics (listed under Chemical Engineering)
Electrical Engineering and Physics (listed under Electrical and Computer Engineering)
```


## COMBINED BACHELOR'SIMASTER'S PROGRAMS

Listed below are the combined bachelor's/master's degree programs offered by the undergraduate full-time day colleges and the graduate schools at Northeastern University. In some cases, the academic area under which the program is listed in this catalog is indicated parenthetically.

## College of Arts and Sciences

Applied Physics and Engineering (listed under Physics)
Biochemistry/Biotechnology (listed under Biochemistry)
Biochemistry/Chemistry (listed under Biochemistry)
Biology/Biotechnology (listed under Biology)
Chemistry
Communication Studies/Communication, Media, and Cultural
Studies (listed under Communication Studies)

## Economics

English
History
Physics, Applied, and Engineering (listed under Physics) Political Science

## Bouvé College of Health Sciences

Health Science/Public Health
Speech-Language Pathology and Audiology

College of Computer and Information Science
Computer Science

## College of Criminal Justice

Criminal Justice

## College of Engineering

Applied Physics and Engineering (listed under Physics)

## MINORS

Listed below are the minors offered by the undergraduate full-time day colleges at Northeastern University. In some cases, the academic area under which the minor is listed in this catalog is indicated parenthetically.

## College of Arts and Sciences

African-American Studies
Anthropology, Cultural (listed under Sociology and Anthropology)
Architectural History (listed under Architecture)
Art + Design (non-Art + Design majors only)
Art, Digital (listed under Art + Design; graphic design majors only)
Art History (listed under Art + Design)
Biology
Biology, Marine (listed under Biology)
Chemistry
Cinema Studies
Communication Studies
Creative Industries
Cultural Anthropology (listed under Sociology and Anthropology)
Digital Art (listed under Art + Design; graphic design majors only)
East Asian Studies (listed under Asian Studies) Economics
Education, Elementary (listed under Education)
Education, Secondary (listed under Education)
Elementary Education (listed under Education)
English Literature (listed under English)
English Writing (listed under English)

Environmental Geology (listed under Earth and Environmental Sciences)
Environmental Science (listed under Earth and Environmental Sciences)
Environmental Studies
Ethics (listed under Philosophy and Religion)
Ethnomusicology (listed under Music)
French (listed under Languages, Literatures, and Cultures)
Geology (listed under Earth and Environmental Sciences)
Graphic Design (listed under Art + Design; art majors and digital art majors)
Greek Studies, Modern and Classical (listed under International Affairs)
History
Human Services
International Affairs
Jewish Studies
Journalism
Languages, French (listed under Languages, Literatures, and Cultures)
Languages, Spanish (listed under Languages, Literatures, and Cultures)
Latino, Latin American, and Caribbean Studies (listed under Interdisciplinary Minors)
Law, Policy, and Society (listed under Interdisciplinary Minors)
Leadership Studies (listed under Interdisciplinary Minors)
Linguistics
Literature, English (listed under English)
Marine Biology (listed under Biology)
Marine Studies (listed under Interdisciplinary Minors)
Mathematics
Media Production (listed under Communication Studies)
Middle East Studies (listed under Interdisciplinary Minors)
Modern and Classical Greek Studies (listed under International Affairs)
Music
Music, Ethnomusicology (listed under Music)
Music Industry (listed under Music)
Music Performance (listed under Music; music majors only)
Musical Theatre (listed under Theatre)
Oratory and Public Speaking (listed under Communication Studies)
Philosophy (listed under Philosophy and Religion)
Physics
Political Science
Psychology
Religious Studies (listed under Philosophy and Religion)
Rhetoric (listed under Communication Studies)
Secondary Education (listed under Education)
Sociology (listed under Sociology and Anthropology)
Spanish (listed under Languages, Literatures, and Cultures)
Technical Communication (listed under English)

Theatre
Urban Studies (listed under Interdisciplinary Minors)
Women's Studies (listed under Interdisciplinary Minors)
Writing, English (listed under English)

## Bouvé College of Health Sciences

Early Intervention (listed under Speech-Language Pathology and Audiology; speech-language pathology and audiology majors only)
Exercise Physiology (listed under Health Sciences)
Health Science
Toxicology

## College of Business Administration

Business Administration
Technological Entrepreneurship

## College of Computer and Information Science

Computer Science
Information Science

## College of Criminal Justice

Criminal Justice

## College of Engineering

Biochemical Engineering (listed under Chemical Engineering)
Biomechanical Engineering (listed under Mechanical and Industrial Engineering)
Biomedical Engineering (listed under Electrical and Computer Engineering)
Computer Engineering (listed under Electrical and Computer Engineering)
Electrical Engineering (listed under Electrical and Computer Engineering)
Industrial Engineering (listed under Mechanical and Industrial Engineering)
Materials Science and Engineering (listed under Interdisciplinary Minors)
Mechanical Engineering (listed under Mechanical and Industrial Engineering)

## Bruce Ronkin, DMA, Interim Dean

Barry Bluestone, PhD, Dean, School of Social Science, Urban Affairs, and Public Policy, and Director, Dukakis Center for Urban and Regional Policy
Christopher J. Bosso, PhD, Associate Dean for Faculty and Associate Dean, School of Social Science, Urban Affairs, and Public Policy
Kay Onan, PhD, Associate Dean, Academic Affairs
James Sarazen, MBA, Associate Dean, Administration and Finance
Lynn Barnet, MA, Student Development Specialist, General Studies Program
Kathleen Cameron, MA, Academic Advisor
Jeremy Casson, MEd, Academic Advisor
Lynn Dornink, MA, Associate Director, General Studies Program
Kathleen Farnham, MEd, Academic Advisor
Susan Freid, MEd, Student Development Specialist, General Studies Program
Kimberly Irmiter, MA, Coordinator, Academic Student Services
Gail F. Leclerc, MEd, Academic Advisor
Mary Mello, MA, Director, Academic Student Services
David Merry, MA, Academic Advisor
Helena Prezio, MFA, Academic Coordinator
Justin Repici, MBA, Coordinator, Experiential Education and Academic Advisor
Norma P. Rosin, MEd, Student Development Specialist, General Studies Program
Meaghan Q. Sinclair, MA, Academic Advisor
Adam P. Smith, MBA, Associate Director of Academic Student Services
Jan Swindlehurst, MFA, Coordinator, Academic Student Services

Office: Center for Academic Services, 1 Meserve Hall
Phone: 617.373.3980
Fax: 617.373.7768
E-mail contact: cas@neu.edu

Abroad study of disciplines in the arts and sciences is the basis of higher education. Most students in the University-no matter which college they are in-devote a substantial portion of their studies to the arts and sciences.

## www.cas.neu.edu

The College of Arts and Sciences offers Bachelor of Arts, Bachelor of Science, and Bachelor of Fine Arts degrees. The college emphasizes general education through the NU Core. The college offers a large number of majors, as well as many interdisciplinary programs. These include national and international programs for study and experience; programs in field settings, both local and abroad; and programs involving affiliations in such areas as professional performing arts organizations, media organizations, and government offices. The college also emphasizes experiential education through cooperative education; service-learning; and other kinds of internships, student-faculty research collaborations, and study abroad.

Students may choose a four- or five-year experiential education plan in most programs. Either plan offers co-op opportunities, often in an area related to the student's chosen academic area. Students are normally eligible to participate in coop in the second semester of their sophomore year and after they have declared a major.

Students may enter the college with a declared major; however, considerable flexibility exists within the college and many students change majors during their first two years. Students not yet ready to commit to a major may choose the Program for Undeclared Students. Undeclared students are strongly encouraged to declare a major by the beginning of their sophomore year, particularly if they are interested in the co-op program or very structured programs. Entrance requirements vary by major. Please see the academic program section of the appropriate major for more information.

Many programs are flexible enough to allow students to pursue a double major, a major and a minor, or one of the college’s specific integrated dual majors. The college also offers students the opportunity to create an independent major in cases where their interests and goals are not met by a specific major program.

## Academic Advising

The College of Arts and Sciences (CAS) has a multilayered academic advising system with professional dean's office advisors located in the Center for Academic Services and faculty advisors located in the college's departments and program offices. Detailed advising information is available on the college Web site: www.neu.edu/cas/undergraduate/support.html. Prelaw advising (www.neu.edu/prelaw/) and premedical/predental advising (www.premed.neu.edu) are also available.

## Academic Progression Standards

The College of Arts and Sciences adheres to the University-wide academic progression standards described in the beginning of the catalog. Some majors have additional specific requirements in order to progress from year to year (see major requirements in departmental listings).

## Graduation Clearance Process

Students in the College of Arts and Sciences are required to meet with a dean's office advisor in 1 Meserve Hall to determine their remaining graduation requirements. Some departments also require a meeting with a faculty advisor in their major/program. This should be completed in the junior year to ensure ample time to complete any outstanding requirements.

## Transferring to the College of Arts and Sciences

Students who wish to transfer to an arts and sciences major should meet with a faculty advisor in the major in which they are interested as well as the appropriate dean's office advisor in the Center for Academic Services. Both advisors must sign a petition for the student to be admitted to the major, and the student must take the petition to the Center for Academic Services to be processed. For a list of dean's office and faculty advisors, please consult the college Web site at:
www.neu.edu/cas/undergraduate/facultyadvisors.html. For specific internal transfer requirements please refer to the academic programs section of the catalog. To declare a minor in the college, students should have a petition signed by a faculty advisor in the department/program offering the minor.

## College Requirements

All students in the College of Arts and Sciences must successfully complete the University requirements of the NU Core (see page 26). In addition, students pursuing a Bachelor of Arts degree (BA) must fulfill the college BA requirements as outlined below.

## CAS KNOWLEDGE DOMAIN REQUIREMENT

 FOR BA STUDENTSIn the NU Core Knowledge Domain category, students pursuing a BA will complete one course in the arts domain and one course in the humanities domain (for a total of two arts/humanities core courses). Arts/humanities core courses in the following subjects are considered arts domain courses: ARCH, ARTD, ARTE, ARTF, ARTG, ARTH, ARTS, MUSC, MUSI, MUST, and THTR. All other arts/humanities core courses are considered humanities domain courses.

## CAS LANGUAGE REQUIREMENT

 FOR BA STUDENTSEach BA student must complete the CAS language requirement by demonstrating proficiency at the elementary level and at the intermediate level in one of the languages offered in the University's World Languages Center.

## Elementary Level

Satisfy one of the following requirements:
a. Complete elementary-level two (course number 1102) of a language with grades of C or better in all course work (pass/fail grades cannot be used to satisfy this proficiency requirement).
b. Earn a 4 or 5 score on an Advanced Placement (AP) exam in one of the languages offered or receive transfer credit for the equivalent of elementary-level two (course number 1102). Students who have AP or transfer credit must also receive a satisfactory rating in a language-specific interview administered by the World Languages Center upon matriculation.
c. Receive a satisfactory score (as determined by the World Languages Center) on a standardized placement exam and a satisfactory rating in a language-specific interview administered by the World Languages Center upon matriculation.

## Intermediate Level

Satisfy one of the following requirements:
d. Complete a course at the intermediate level (course number 2101 or higher) in the language taken at the elementary level.
e. Complete a course the subject matter of which is focused on some aspect of the culture, history, or society of a part of the world where the language taken at the elementary level is spoken or used by a significant portion of the population. For a course list, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."
f. Demonstrate conversational proficiency by successfully completing a proficiency interview (scheduled through the World Languages Center). This option is available only for heritage speakers of a language or for students who have completed the elementary-level language requirement through (b) advanced placement or (c) standardized placement exam as outlined above.

## INTERDISCIPLINARY STUDIES

www.interdisciplinary.neu.edu

Gerald H. Herman, MA<br>Director of the Center for Interdisciplinary Studies

Office: 223 Meserve Hall
Phone: 617.373.4441
Fax: 617.373.4222
E-mail contact: Gerald H. Herman, Director, g.herman@neu.edu
The Center for Interdisciplinary Studies in the College of Arts and Sciences offers students the opportunity to study in a broad range of interdisciplinary programs suited to their curricular or career
objectives and also permits students to design their own independent programs of study. The center is a resource for students who want to obtain more information about the various interdisciplinary programs, apply for interdisciplinary scholarships, join our affiliated academic organizations, enroll in special courses, and participate in our innovative community partnerships.

The center also supports and coordinates the individual programs. Interdisciplinary programs consist of freestanding majors, dual majors, minors, and concentrations. This vast array permits students the flexibility to explore the boundaries at the cutting edge of existing disciplines and to explore areas of secondary or personal interest and nontraditional courses of study. For more information on the programs, contact the Center for Interdisciplinary Studies (1 Nightingale Hall) at 617.373.2427 or the individual program directors. The interdisciplinary programs of the college follow.

## Interdisciplinary Majors

Asian Studies
Behavioral Neuroscience
Biochemistry
Cinema Studies* (dual majors)
Environmental Studies*
Game Design (dual majors)
$\quad$ listed under Creative Industries
Human Services*
Interactive Media (dual majors)
$\quad$ listed under Creative Industries
International Affairs*
Jewish Studies* (dual major)
Linguistics*

See page 69.
See page 71.
See page 73 .
See page 87.
See page 118.

See page 102.
See page 134.

See page 102.
See page 142.
See page 154.
See page 162.
*A minor is also available.

## Double Majors

Students with interests in two separate fields have traditionally pursued both by enrolling in a double major. A double major allows students to combine two majors of their choice within the College of Arts and Sciences. Students pursuing a double major must complete all requirements for each major plus the NU Core. The college allows double counting across the NU Core and major requirements for students completing a double major. Students earning two majors within the college that have different degree designations choose the degree they will earn. The major associated with that degree is then considered the first major and the other major is the second major.

## Dual Majors

The integrated dual major allows students to link concepts across disciplinary boundaries. Dual-major options are limited to those combinations for which faculty from two majors have identified nine or more courses from each major, plus an additional one or two "capstone" or integrative courses, that specifically help students link the concepts learned in both majors. Students pursuing dual majors complete the NU Core, and the college allows double counting between the NU Core and major requirements. Currently, the following dual majors are offered within the College of Arts and Sciences:

American Sign Language and Human Services
American Sign Language and Psychology
American Sign Language and Theatre
Biology and Environmental Geology
Biology and Geology
Biology and Mathematics
Cinema Studies and Communication Studies
Cinema Studies and English
Cinema Studies and Journalism
Cinema Studies and Languages, Literatures, and Cultures
Cinema Studies and Philosophy
Cinema Studies and Theatre
Digital Art and Game Design
Digital Art and Interactive Media
Economics and Mathematics
Environmental Geology and Chemistry
Environmental Geology and Environmental Studies
Environmental Geology and Mathematics
Environmental Geology and Physics
Environmental Studies and History
Environmental Studies and International Affairs
Environmental Studies and Philosophy
Environmental Studies and Political Science
Geology and Chemistry
Geology and Mathematics
Geology and Physics
Graphic Design and Game Design
Graphic Design and Interactive Media
Human Services and International Affairs
Interactive Media and Music with Concentration in Music Technology
International Affairs and Anthropology
International Affairs and Economics
Jewish Studies and Religion
Languages, Literatures, and Cultures and International Affairs
Linguistics and English
Linguistics and Psychology
Mathematics and Physics
Physics and Philosophy
Political Science and Economics
Political Science and International Affairs
Psychology and Education

The following dual majors are offered by the College of Arts and Sciences in conjunction with other colleges at the University:

Chemical Engineering and Physics (College of Engineering) Computer Science and Biology (College of Computer and Information Science)
Computer Science and Cognitive Psychology (College of Computer and Information Science)
Computer Science and Digital Art (College of Computer and Information Science)
Computer Science and Environmental Science (College of Computer and Information Science)
Computer Science and Game Design (College of Computer and Information Science)
Computer Science and Interactive Media (College of Computer and Information Science)
Computer Science and Mathematics (College of Computer and Information Science)
Computer Science and Music with Concentration in Music Technology (College of Computer and Information Science)
Computer Science and Physics (College of Computer and Information Science)
Electrical Engineering and Physics (College of Engineering)
Human Services and Criminal Justice (College of Criminal Justice)
Information Science and Cognitive Psychology (College of Computer and Information Science)
Information Science and Environmental Science (College of Computer and Information Science)

Students interested in these dual majors should contact the participating college or department, or consult interdisciplinary major details. Information may also be obtained at the Center for Interdisciplinary Studies, 9 Holmes Hall, 617.373.2427. Other dual majors, both within the College of Arts and Sciences and across colleges, are currently under development or undergoing the University's review process.

## Independent Major

Students who can demonstrate that none of the established major programs in the College of Arts and Sciences provide preparation for their academic or professional goals may petition to design an independent major. The independent major is expected to be interdisciplinary in nature, crossing two or more disciplines. Independent major proposals must be submitted to the Center for Interdisciplinary Studies at least one semester prior to the semester in which the student wishes to begin the new major. All proposals should state clearly how the student will explore linkages among the disciplines involved in the independent major. Course requirements include fourteen to fifteen full courses approved by two or more faculty advisors who will serve as the major's sponsors as well as facilitators for the student. All independent majors must also include a major research effort.

Applicants must have attained sophomore status or above, not be on academic probation, and have two full semesters of course work or more remaining from the time the proposal is approved. In addition to these requirements, external transfer students must have completed two semesters in one of the University's undergraduate colleges.

For proposal guidelines and submission information, contact the program coordinator in the Center for Interdisciplinary Studies (1 Nightingale Hall) at 617.373.2427.

## Teacher Preparation

Northeastern University's Department of Education offers teacher preparation programs that are approved by the Massachusetts Department of Education. All programs require that students complete an appropriate Arts and Sciences major along with a minor in education at the elementary or secondary level. All Arts and Sciences majors, except American Sign Language and human services, are approved majors for students seeking licensure at the elementary level. A minor in education at the secondary level requires a major in math, physics, chemistry, biology, political science, history, English, or Spanish. Completion of an Arts and Sciences major, education minor, and student teaching enables students to earn an initial teaching license in Massachusetts. Massachusetts participates in the interstate reciprocity agreement with many other states. See page 113 for details or contact the Department of Education (26 Nightingale Hall) at 617.373.4216.

## INTERDISCIPLINARY MINORS

## Cinema Studies

The cinema studies program at Northeastern University is unique in the Boston area, offering a broad interdisciplinary curriculum. Students who choose the cinema studies minor are exposed to a range of aesthetic, historical, international, and sociological perspectives from which to approach the film and video medium. They may also learn to integrate these analytical approaches with practical experience in videography and with internships in the Boston area. The diverse course offerings and carefully structured program have enabled our graduates to do well in the everexpanding world of video production, distribution, and marketing, as well as to pursue careers as film scholars and teachers. Students take five courses: two required courses and three electives. See page 87 for more information on cinema studies or go to the cinema studies Web site at www.cinemastudies.neu.edu.

## Minor in Cinema Studies

See "Minor in Cinema Studies" on page 97.

## Creative Industries

The minor in creative industries offers an opportunity for students from any department and program at Northeastern University to
develop skills and knowledge in interactive media and/or game design to enhance their major with cutting-edge techniques and interdisciplinary collaboration.

For more information on the creative industries minor, contact the program director, Terrence Masson (321 Ryder), at 617.373.7645 or at t.masson@neu.edu.

## Minor in Creative Industries

See "Minor in Creative Industries" on page 104.

## East Asian Studies

East Asian Studies offers a broad interdisciplinary curriculum that is based on the course offerings of six departments. The purpose of this program of study is to provide a foundation of knowledge in an East Asian area as well as to enhance students' understanding of Western society through the comparative insights gained from an intense examination of one non-Western region of the world. Students are encouraged to take advantage of the University's study-abroad programs in East Asia, the Dialogue of Civilizations summer study tours to China and Japan, and the Dialogue of Civilizations intensive summer language programs.

For more information, contact the program director, Professor Christina Gilmartin, in 249 Meserve, or at 617.373.4449, or at c.gilmartin@neu.edu.

## Minor in East Asian Studies

See "Minor in East Asian Studies" on page 70.

## Minor in East Asian Studies-Language Track

See "Minor in East Asian Studies-Language Track" on page 70.

## Environmental Studies

The minor in environmental studies is designed to provide a flexible platform for students interested in the environment. Students in the environmental studies minor have an opportunity to develop skills and knowledge in such areas as planning, regulation, policy, and compliance, depending on the upper-level course choices they make.

For more information on the environmental studies minor, contact the program director, Professor Jennifer Rivers Cole (14 Holmes Hall), at 617.373.3039 or at j.cole@neu.edu.

## Minor in Environmental Studies

See "Minor in Environmental Studies" on page 126.

## Human Services

The mission of the human services program is to provide students with the theoretical and skill-based background necessary to practice in macro-, mezzo-, and microarenas such as political advocacy, community development, and direct service. The minor may help lead to careers in many diverse areas of the helping professions or to graduate programs in social work, counseling,
rehabilitation, and law. Human services professions are among the fastest-growing occupations in the nation. Society recognizes the necessity, value, and reward of dedicating time and energy to helping people. Combining a human services minor with any major gives students the opportunity to learn about the individual community and political interventions for social change.

## Minor in Human Services

See "Minor in Human Services" on page 142.

## Independent Minor

The independent minor gives students who focus their energies on a traditional major or dual major an opportunity to explore the cross-disciplinary implications of their study in a formal manner. It also allows students to construct and obtain recognition for a coherent interdisciplinary content, thematic, or other focus of study supplementary to their major. An independent minor should contain at least six courses approved by a faculty advisor who will serve as the minor's sponsor as well as facilitator for the student. The minor should include a directed study course to help the student integrate the subject matter from the disparate disciplines covered by the minor.

Applicants must have attained sophomore status and not be on academic probation.

## GPA REQUIREMENT <br> 2.000 GPA required in the minor

For proposal guidelines and submission information, contact the Center for Interdisciplinary Studies (1 Nightingale Hall) at 617.373.2427.

## International Affairs

International Affairs is an interdisciplinary major in the College of Arts and Sciences. The international affairs program is designed (a) to prepare today's students with the knowledge and skills needed to survive and to lead in this global marketplace-a marketplace not simply of products and services but also of ideas, identities, and values-and (b) to promote "global citizenship" and social responsibility among all members of the international community.

## Minor in International Affairs

See "Minor in International Affairs" on page 151.

## Jewish Studies

The Jewish studies program provides students with the opportunity to explore the religion, culture, and history of the Jewish people. The program offers a dual major in Jewish studies and religion and a minor in Jewish studies; it also partners with the human services program to offer a "Social Justice, Identity, and Religion" specialization within the human services major. A cooperative relationship between Northeastern University and

Hebrew College allows cross-registration and concurrent library privileges at both institutions, as well as an integrated five-year program through which students can earn a BA from Northeastern and an MA or MJEd from Hebrew College.

For more information, contact the Jewish studies program at 617.373.7045 or visit the Jewish studies Web site at www.neu.edu/jewishstudies/.

## Minor in Jewish Studies

See "Minor in Jewish Studies" on page 156.

## Latinola, Latin American, and Caribbean Studies

The LLACS (Latino/a, Latin American, and Caribbean Studies) program offers an interdisciplinary minor. It explores the historical, cultural, political, and economic foundations of and linkages between U.S. Latino society, Latin America, and the Caribbean. It draws from the heritages of the Americas that are grounded in predominantly indigenous, African, and European cultures.

For more information, contact the program director, Professor Alan West-Duran (447 Meserve Hall), at 617.373.4292 or at d.west-duran@neu.edu.

## Minor in Latinola, Latin American, and Caribbean Studies

## REQUIRED COURSE

Complete the following course:

> LACS $1220 \quad$ Latino, Latin American, and Caribbean Studies

## ELECTIVE COURSES

| AFAM 1270 | Economic Status of Ethnic Minorities | 4 SH |
| :---: | :---: | :---: |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| AFAM 2367 | Race and Social Identity | 4 SH |
| ANTH 2365 | Sport, Culture, and Society | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| ENGL 3673 | U.S. Latino/Latina Literature | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| LITR 4655 | Latin American Literature | 4 SH |
| MUSC 1127 | Introduction to World Music | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 2380 | Latino Politics in the United States | 4 SH |


| POLS 3475 | Government and Politics in Latin <br> America | 4 SH |
| :--- | :--- | :--- |
| SOCL 1246 | Environment and Sociology | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |
| SOCL 3460 | Sociology of Latino Society | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Law, Policy, and Society

Law, Policy, and Society (LPS) is an interdisciplinary program integrating the study of law with politics, criminal justice, economic analysis, sociology, philosophy, and history. Course work will analyze the social, political, and economic consequences of law, legal processes, and the impetus for legal change. In the LPS minor core courses, students will have the opportunity to watch a criminal and/or civil trial, participate in a moot court before a panel of "judges," and listen to speakers from both the public and private sector (past speakers have included a superior court judge and an assistant attorney general). While the minor is well suited for students interested in pursuing a career in law and/or policy, it is invaluable for students in any field of practice, as law affects all professions and facets of everyday life. Likewise, the LPS minor courses are taught by faculty drawn from a number of fields, including criminal justice, sociology, political science, law, philosophy, and economics. For more information, contact the program director, Professor Joan Fitzgerald (205 Holmes Hall), at 617.373.3644 or at jo.fitzgerald@neu.edu.

## Minor in Law, Policy, and Society

## REQUIRED COURSES

Complete the following two courses: Note: A minimum grade of B is required for LPSC 2301:

| LPSC 2201 | Introduction to Law | 4 SH |
| :--- | :--- | :--- |
| LPSC 2301 | Introduction to Law, Policy, and | 4 SH |

## ELECTIVE COURSES

Complete three courses from the following list:

| AFAM 2399 | Black Community and Social Change | 4 SH |
| :--- | :--- | :--- |
| AFAM 4549 | Public Policy and Black America | 4 SH |
| AFRS 4645 | National Model OAU/African Union | 4 SH |
| COMM 2331 | Legal Argumentation, Advocacy, and <br>  <br>  <br> Citizenship | 4 SH |
| COMM 3501 | Free Speech: Law and Practice | 4 SH |
| CRIM 2100 | Criminal Due Process | 4 SH |
| CRIM 2200 | Criminology | 4 SH |
| CRIM 3200 | Juvenile Justice | 4 SH |
| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4110 | Legal Philosophy | 4 SH |
| CRIM 4630 | Political Crime and Terrorism | 4 SH |
| CRIM 4670 | Comparative Criminal Justice | 4 SH |
| ECON 1240 | Economics of Crime | 4 SH |


| ECON 3423 | Environmental Economics | 4 SH |
| :---: | :---: | :---: |
| ECON 3461 | Government and Business | 4 SH |
| ENGL 3311 | Advanced Writing for Prelaw | 4 SH |
| ENGL 3325 | Rhetoric of Law | 4 SH |
| ENVR 5210 | Environmental Planning | 4 SH |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| JRNL 3550 | Law of the Press | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| LPSC 3303 | Topics in Law, Policy, and Society | 4 SH |
| MMST 4160 | Business, Law, and Multimedia | 4 SH |
| MUSI 3335 | Copyright Law for Musicians | 4 SH |
| PHIL 2301 | Philosophical Problems of Law and Justice | 4 SH |
| PHIL 2303 | Social and Political Philosophy | 4 SH |
| PHIL 2304 | Philosophical Problems of Economic Justice | 4 SH |
| POLS 3302 | Judicial Process and Behavior | 4 SH |
| POLS 3324 | Law and Society | 4 SH |
| POLS 4500 | U.S. Constitutional Law | 4 SH |
| POLS 4505 | U.S. Civil Liberties | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4615 | Seminar in Public Law | 4 SH |
| POLS 4905 | Moot Court | 4 SH |
| SOCL 1205 | Law and Social Justice | 4 SH |
| SOCL 3406 | Class, Crime, and the Legal System | 4 SH |
| SOCL 4518 | Law and Social Issues | 4 SH |
| The following courses are available to business majors only: |  |  |
| FINA 4312 | Issues in Corporate Governance | 4 SH |
| MGMT 3301 | Legal, Ethical, and Social Issues | 2 SH |
| MGMT 3410 | Legal Aspects of Business | 2 SH |

## GPA REQUIREMENT

3.000 GPA required in the minor

## Leadership Studies

The leadership studies minor is designed to provide students with the knowledge, skill, and practice to become effective leaders in a variety of fields and disciplines.

The leadership studies minor, located in the Center for Interdisciplinary Studies, crafts a curriculum that works well in partnership with a broad spectrum of majors. Courses draw from over 14 departments including the Departments of Communication Studies, Political Science, Sociology, Interdisciplinary Studies, and Philosophy, providing an overarching ethical and skills base for students.

The leadership studies minor currently offers four tracks that serve a wide variety of student interests and concerns: Women and Leadership; Military Leadership; Public Policy and Leadership; and Organizations and Leadership. A foundations course, ethics course, and practicum round out the minor.

## WOMEN AND LEADERSHIP TRACK

This track aims to help develop an understanding of women as leaders in both a global and an historical context, raise awareness of how gender relates to the definitions and practices of leadership, and enhance leadership skills for all participating students.

## MILITARY LEADERSHIP TRACK

This track focuses on providing students with an understanding of war and conflict in an historical, economic, social, and political context. For those who choose Reserve Officer Training Corps (ROTC), this track teaches students the principles of military leadership in an academic setting. It provides students with the opportunity to apply these principles to real-world situations through their participation in the ROTC Cadet Battalion.

## PUBLIC POLICY AND LEADERSHIP TRACK

This track is designed for students interested in the functions of government, public policy making, and public administration. Students are shown how policy decisions affect populations, human and ecological environments, and the legitimacy and authority of public decision makers. Ultimately, this track offers students the opportunity to understand the dynamics of leadership and decision making and the impact that public and interpersonal communication skills have on these processes.

## ORGANIZATIONS AND LEADERSHIP TRACK

This track provides a lens through which students can examine and explore organizations and the people within. What is the role of work in society and how does this change across culture and time? How does the definition of leadership effectiveness change for different types of organizations and communities? Students are exposed to practices and ideas geared to help them make a difference, work with others, and accomplish change in their leadership endeavors. Students grapple with processes, strategies, and skills at the individual and organizational level including consulting, diagnosis, communication, and working successfully in teams.

For more information, contact Lauren Turner (1 Nightingale Hall) at 617.373.6017 or at l.turner@neu.edu. Also, please visit www.interdisciplinary.neu.edu/leadershipstudies.html.

## Minor in Leadership Studies

## REQUIRED COURSES—INTRODUCTION

Complete the following course:
LDRS $1130 \quad$ Introduction to Leadership Studies 4 SH

## REQUIRED COURSES—PRACTICUM/EXPERIENCE

Complete one of the following courses. The directed study and service-learning course options require approval from the program director:

| IDSC 4945 | Service-Learning | 4 SH |
| :--- | :--- | :--- |
| IDSC 4996 | Experiential Education Directed Study | 4 SH |
| LDRS 4995 | Student Leadership Practicum | 4 SH |

REQUIRED COURSES-ETHICS

| PHIL 1130 | Ethics: East and West | 4 SH |
| :---: | :---: | :---: |
| PHIL 1145 | Technology and Human Values | 4 SH |
| PHIL 1165 | Moral and Social Problems in Health Care | 4 SH |
| PHIL 1170 | Business Ethics | 4 SH |
| PHIL 1180 | Environmental Ethics | 4 SH |
| PHIL 2302 | Philosophical Problems of War and Peace | 4 SH |
| PHIL 2304 | Philosophical Problems of Economic Justice | 4 SH |
| PHIL 3435 | Moral Philosophy | 4 SH |
| PHIL 3465 | Advanced Medical Ethics | 4 SH |

## LEADERSHIP MINOR ELECTIVES

Complete 16 semester hours of electives in your chosen track. No more than 8 semester hours may be taken from any single department. A maximum of 4 semester hours may be taken from leadership common electives:
Women and Leadership Track
AFAM 2325 African-American Women

COMM 2304
HIST 1242
HIST 2313
Communication and Gender
Women in America
Gender and Revolution in Russia and
China

4 SH
4 SH
4 SH
4 SH China
HIST $2372 \quad$ Gender and Society in Modern Europe 4 SH

LING 3456
POLS 2375
POLS 4910
POLS 4915
SOCL 1260
SOCL 1273
SOCL 3402
SOCL 4520
WMNS 1103
WMNS 3441
WMNS 3451
Language and Gender 4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
1 SH
Military Leadership Track

| ARMY 3301 | Adaptive Team Leadership | 4 SH |
| :--- | :--- | :--- |
| ARMY 3302 | Leadership in Changing Environments | 4 SH |
| ARMY 3503 | American Military History | 4 SH |
| ARMY 4401 | Developing Adaptive Leaders | 4 SH |
| ARMY 4402 | Leadership in a Complex World | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH |
| HIST 1229 | Military History of the United States | 4 SH |
| HIST 1253 | History of Vietnam Wars | 4 SH |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3425 | U.S. Foreign Policy | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |

Public Policy and Leadership Track

| AFAM 1270 | Economic Status of Ethnic Minorities | 4 SH |
| :---: | :---: | :---: |
| AFAM 2339 | Analysis of American Racism | 4 SH |
| AFAM 2344 | Contemporary Black Politics | 4 SH |
| AFAM 2360 | Politics of Poverty | 4 SH |
| AFAM 4549 | Public Policy and Black America | 4 SH |
| AFAM 4600 | Contemporary Issues: Race, Science, and Technology | 4 SH |
| AFRS 4645 | National Model OAU/African Union | 4 SH |
| COMM 4610 | Political Communication | 4 SH |
| ECON 1240 | Economics of Crime | 4 SH |
| ECON 1270 | Economic Status of Ethnic Minorities | 4 SH |
| ECON 3414 | Economics of Human Capital | 4 SH |
| HIST 2342 | Environmental History of North America | 4 SH |
| PHIL 1180 | Environmental Ethics | 4 SH |
| PHIL 2301 | Philosophical Problems of Law and Justice | 4 SH |
| PHIL 2303 | Social and Political Philosophy | 4 SH |
| POLS 2334 | Bureaucracy and Government Organizations | 4 SH |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 2395 | Environmental Politics | 4 SH |
| POLS 3300 | The U.S. Congress | 4 SH |
| POLS 3305 | The American Presidency | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| POLS 3315 | Interest Groups and Public Policy | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| SOCL 1228 | Social Problems | 4 SH |
| SOCL 3401 | Social Policy and Intervention | 4 SH |
| Organizations and Leadership Track |  |  |
| COMM 1231 | Principles of Organizational Communication | 4 SH |
| COMM 2531 | Application of Organizational Communication | 4 SH |
| COMM 3534 | Group Communication | 4 SH |
| COMM 4533 | Consultation Skills | 4 SH |
| HIST 2343 | History of Business in America | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 4505 | Industrial/Organizational Psychology | 4 SH |
| SOCL 1272 | Social Roles in the Business World | 4 SH |
| SOCL 1280 | Sociology of Work | 4 SH |
| SOCL 3408 | Sociology of Organizations | 4 SH |
| SOCL 3440 | Sociology of Human Service Organizations | 4 SH |

## Leadership Common Electives

A maximum of 4 semester hours may be taken from the following list to fulfill an elective requirement in any track:
COMM $1112 \quad$ Public Speaking 4 SH
COMM $2303 \quad$ Global and Intercultural 4 SH

COMM $2310 \quad$ Classical Rhetorical Theory 4 SH

| COMM 2402 | Presentation, Style, and Professional <br> Communication | 4 SH |
| :--- | :--- | :--- |
| COMM 3230 | Interpersonal Communication | 4 SH |
| COMM 3331 | Argumentation and Debate | 4 SH |
| COMM 3532 | Theories of Conflict and Negotiation | 4 SH |
| JRNL 3425 | Public Relations Principles | 4 SH |
| LDRS 3445 | Topics in Leadership | 4 SH |
| or complete the following (repeatable) course four times: |  |  |
| LDRS 3455 | Leadership Studies Module | 1 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Linguistics

What is language? How do children learn to speak? How is language represented in the mind? What do all languages, including sign languages, have in common? How is language different from the communication systems used by whales, bees, and chimpanzees? What information does a machine need in order to "understand" or "produce" speech or text? How do language barriers keep people apart, and how do language ties bring them together? Do men and women speak differently? How might we think about linguistic controversies, including debates about official languages, Ebonics, gender bias, and bilingualism in education? How can language serve as a window into the mind? Linguistics attempts to answer each of these questions and covers a surprisingly broad range of topics related to language and communication. Cutting-edge work in cognitive science investigates how natural languages are learned and processed. Grammar checkers and translation programs use language parsers; search engines, browsers, and editors use results from computational linguistics. Linguistics is behind every application that recognizes or synthesizes speech. To work in a field that involves language in any way, you'll need to know how language works, the stuff of linguistics.

## Minor in Linguistics

See "Minor in Linguistics" on page 166.

## Marine Studies

The marine studies minor is designed to provide a structured program for students with an interest in the marine environment. The program allows an emphasis in either the scientific or the social science/humanistic study of the oceans.

The program draws on courses throughout the University and is affiliated with several outstanding, specialized marine programs. These include the SEA Semester Program run by the Sea Education Association, which provides a rigorous program in marine sciences at Woods Hole, Massachusetts, and aboard one of its tall ships for training cruises in the Caribbean, Pacific, or Labrador Sea. In addition to the cruises designed to explore the broad range of aspects of marine science and culture, there are specialized cruises that add a focus on Caribbean studies, Pacific island culture, and marine environmental issues. Students may
also take specialized courses in marine topics through the Marine Studies Consortium.

For more information, contact the director of marine studies, Professor Peter S. Rosen ( 14 Holmes Hall), at 617.373 .4380 or at p.rosen@neu.edu.

## Minor in Marine Studies

## REQUIRED COURSES

Complete four courses from the following lists. Two courses must be above the introductory level:

## Humanities

| ENVR 2941 | Ocean Science and Public Policy | 4 SH |
| :---: | :---: | :---: |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| ENVR 2943 | Marine Environmental History: The Caribbean | 4 SH |
| ENVR 3102 | Maritime Studies | 3 SH |
| HIST 1210 | Atlantic Connection | 4 SH |
| HIST 1232 | History of Boston | 4 SH |
| MARS 3305 | Maritime History of New England | 4 SH |
| MARS 3310 | Water Resources Policy and | 4 SH |
|  | Management |  |

## Sciences

BIOL 1151 Introduction to Marine Biology 4 SH
BIOL 2315 Invertebrate Zoology 4 SH
BIOL $5501 \quad$ Marine Botany 4 SH
BIOL $5503 \quad$ Marine Invertebrate Zoology 4 SH
BIOL 5505 Biology of Corals 3 SH
BIOL $5507 \quad$ Biology and Ecology of Fishes 3 SH
BIOL $5509 \quad$ Marine Birds and Mammals 2 SH
BIOL $5515 \quad$ Marine Ecology 4 SH
BIOL 5517 Oceanography 2 SH
BIOL $5519 \quad$ Ocean and Coastal Processes 2 SH
BIOL 5521 Experimental Design Marine Ecology 4 SH
BIOL $5523 \quad 3$ SH
BIOL $5525 \quad$ Marine Microbial Ecology 2 SH
BIOL $5589 \quad$ Diving Research Methods 2 SH
ENVR $1120 \quad$ Oceans and Coasts 4 SH
ENVR $1121 \quad 4 \mathrm{SH}$
ENVR $1122 \quad$ Physical Oceanography 4 SH
ENVR $1123 \quad$ Biological Oceanography 4 SH
ENVR $1124 \quad$ New England Fisheries Resources 4 SH
ENVR $3100 \quad$ Oceanography 3 SH
ENVR $3101 \quad$ Nautical Science 3 SH
ENVR $3103 \quad$ Practical Oceanography 14 SH
ENVR 3104 Practical Oceanography 24 SH
ENVR $3105 \quad$ Practical Oceanographic Research 3 SH
ENVR $4106 \quad$ Coastal Processes 4 SH
with ENVR 4107 Lab for ENVR $4106 \quad 1$ SH
ENVR $5210 \quad$ Environmental Planning 4 SH
ENVR $5242 \quad$ Ancient Marine Life 4 SH
with ENVR 5243 Lab for ENVR 52421 SH

| ENVR 5244 | Sedimentation | 4 SH |
| :--- | :--- | :--- |
| with ENVR 5245 | Lab for ENVR 5244 | 1 SH |
| ENVR 5248 | Marine Geology | 4 SH |
| MARS 3200 | Marine Studies | 4 SH |
| MARS 3210 | Marine Mammals | 4 SH |
| MARS 3300 | The Ocean World | 4 SH |
| MARS 3315 | Wetlands: Ecology and Hydrology | 4 SH |
| MARS 3325 | Coastal Zone Management | 4 SH |
| MARS 3425 | Biology of Fishes | 4 SH |
| MARS 3430 | Biology of Whales | 4 SH |
| MARS 4500 | Advanced Seminar in Marine Studies | 4 SH |
|  |  |  |
| MARINE-RELATED SKILL |  |  |
| This requirement may be satisfied by completion of the following |  |  |
| course: |  |  |

ENVR $3101 \quad$ Nautical Science 3 SH
or by certification in a skill such as scuba, by a Merchant Marine
license, or by a comparable level of achievement determined by a marine studies advisor.

## MARINE-RELATED INDEPENDENT STUDY

This requirement may be satisfied by producing a research product on a marine-related topic, either as part of another course or independently. Acceptance of product is at the discretion of the marine studies advisor.

## GPA REQUIREMENT

2.000 GPA required in the minor

## Middle East Studies

The minor in Middle East studies at Northeastern is an interdisciplinary program, drawing on courses in international affairs; political science; history; philosophy; religion; economics; anthropology; and languages, literatures, and cultures. The program provides an in-depth study of the Middle East (Arab world, Israel, Iran, and Turkey) and aims to enhance students’ understanding of this culturally diverse and politically important region of the world. Students are encouraged to take advantage of the University's study-abroad programs and the "Dialogue of Civilizations" programs (faculty-led summer programs) in Egypt, Morocco, Turkey, Israel and Palestine, and other approved programs in the region.

For more information, contact Professor Kimberly Jones
(270 Holmes Hall) at 617.373.8203 or at k.jones@neu.edu.

## Minor in Middle East Studies

## REQUIRED COURSES

Complete the following three courses:

| HIST 1290 | Modern Middle East | 4 SH |
| :--- | :--- | :--- |
| INTL 1160 | Middle East Studies | 4 SH |
| POLS 3465 | Government and Politics in the Middle | 4 SH |
|  | East | 4 SH |

## ELECTIVE COURSES

Complete two courses from the following list. Elective courses may include courses taken as part of an approved study-abroad program. Note: Courses used as required courses (above) may not be used as elective courses:

| ARAB 1101 | Elementary Arabic 1 | 4 SH |
| :---: | :---: | :---: |
| ARAB 1102 | Elementary Arabic 2 | 4 SH |
| ARAB 1301 | Elementary Arabic Immersion 1 | 4 SH |
| ARAB 2101 | Intermediate Arabic 1 | 4 SH |
| ARAB 2301 | Intermediate Arabic Immersion 1 | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HBRW 1101 | Elementary Hebrew 1 | 4 SH |
| HBRW 1102 | Elementary Hebrew 2 | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| RELS 1280 | Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |

GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in Middle East Studies-Language Track

## REQUIRED COURSE

Complete the following course:
INTL 1160 Middle East Studies
LANGUAGE COURSES
Complete one of the following language sets:

## Arabic

| ARAB 1101 | Elementary Arabic 1 | 4 SH |
| :--- | :--- | :--- |
| ARAB 1102 | Elementary Arabic 2 | 4 SH |
| Hebrew |  |  |
| HBRW 1101 | Elementary Hebrew 1 | 4 SH |
| HBRW 1102 | Elementary Hebrew 2 | 4 SH |

## ELECTIVE COURSES

Complete two courses from the following list. Elective courses may include courses taken as part of an approved study-abroad program:

| ARAB 1301 | Elementary Arabic Immersion 1 | 4 SH |
| :--- | :--- | :--- |
| ARAB 2101 | Intermediate Arabic 1 | 4 SH |
| ARAB 2301 | Intermediate Arabic Immersion 1 | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HBRW 2301 | Intermediate Hebrew Immersion 1 | 4 SH |
| HIST 1185 | Introduction to Middle Eastern | 4 SH |
|  | $\quad$ History |  |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and | 4 SH |
|  | Economic Development in the |  |
| POLS 3465 | Mediterranean Basin |  |
|  | Government and Politics in the Middle | 4 SH |
| POLS 3470 | East |  |
| POLS 4rab-Israeli Conflict | 4 SH |  |
| RELS 1280 | Model Arab League | Islam |
| RELS 1285 | Jewish Religion and Culture | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Urban Studies

The urban studies minor offers undergraduates interested in urban issues an opportunity to develop a tailor-made curriculum for their minor. Following Northeastern's tradition of practice-oriented education, the program offers opportunities to engage in urban research and to complete cooperative education placements in organizations that address urban issues (that is, community-based organizations, city government agencies, or metropolitan planning agencies). An urban studies minor complements many social science majors as well as architecture, business, and engineering. Its goal is to provide a solid background for graduate study and professional careers in urban planning and policy, social work, and related fields.

For more information, contact the program director, Professor Joan Fitzgerald (205 Holmes Hall), at 617.373.3644 or at jo.fitzgerald@neu.edu.

## Minor in Urban Studies

## REQUIRED COURSES

Complete the following two courses:

| SOCL 2358 | Current Issues in Cities and Suburbs | 4 SH |
| :--- | :--- | :--- |
| URBS 2357 | Growth and Decline of Cities and | 4 SH |
|  | Suburbs |  |

## ELECTIVE COURSES

Complete two courses from the following list:

| AFAM 1140 | Introduction to African-American History | 4 SH |
| :---: | :---: | :---: |
| AFAM 1270 | Economic Status of Ethnic Minorities | 4 SH |
| AFAM 2312 | Black History of Boston | 4 SH |
| AFAM 2337 | African-American History before 1900 | 4 SH |
| AFAM 2360 | Politics of Poverty | 4 SH |
| AFAM 2399 | Black Community and Social Change | 4 SH |
| AFAM 3485 | Education Issues in the Black Community | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ARCH 1310 | History of World Architecture 1 | 4 SH |
| ARCH 1320 | History of World Architecture 2 | 4 SH |
| ARCH 2330 | Nineteenth-Century Architecture and Urbanism | 4 SH |
| ARCH 2340 | Twentieth-Century Architecture and Urbanism | 4 SH |
| ARCH 2350 | American Architecture | 4 SH |
| ECON 1101 | Economic Problems and Perspectives | 4 SH |
| ECON 3420 | Urban Economic Issues | 4 SH |
| ECON 3461 | Government and Business | 4 SH |
| ECON 3470 | American Economic History | 4 SH |
| HIST 1230 | Contemporary America | 4 SH |
| HIST 1232 | History of Boston | 4 SH |
| HIST 2338 | African-American History since 1900 | 4 SH |
| HIST 2344 | U.S. Urban History | 4 SH |
| POLS 2345 | Urban Policies and Politics | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| SOCL 1220 | Sociology of Boston | 4 SH |
| SOCL 1247 | Urban Social Problems | 4 SH |
| SOCL 3403 | American Society | 4 SH |
| SOCL 3418 | Greater Boston Urban Policy Seminar | 4 SH |

## GPA REQUIREMENT

3.000 GPA required in the minor

## Women's Studies

Northeastern offers a minor for students interested in the vibrant field of women's and gender studies. In general, our women's studies program draws on the humanities, arts, and social sciences to explore the broad range of intellectual questions concerning the social location of women and the ways in which gender is embedded not only in our everyday lives but in the theories and methods that guide our academic inquiries across all disciplines, including the natural sciences. Students are exposed to an ever-
evolving body of knowledge on women, gender, and feminism. Such research and scholarship explores historical and contemporary representations of women across a wide range of disciplines as well as an exploration of the intersection of race, class, religion, ethnicity, and gender.

The women's studies program offers an undergraduate minor as well as a graduate women's studies certificate. The program's faculty is composed of 60-plus affiliate members from across 19 departments and programs among four colleges. Students are encouraged to supplement their course work with women's studies modules designed to fit their particular interests and foci. We encourage students to explore our Web site to familiarize themselves with our course offerings, distinguished faculty, international visiting scholars program, internships, study-abroad opportunities, conferences, colloquia, ongoing lecture series (Gender Matters at Northeastern), and many cosponsored events.

The women's studies program also works closely with the independent, student-run Feminist Student Organization to sponsor programs for Women's History Month and other events of special concern to women students.

For more information, contact the program director, Professor Debra R. Kaufman, in 515 Holmes Hall at 617.373.4270 or at d.kaufman@neu.edu; or women’s studies staff in 524 Holmes Hall at 617.373.4984 or at l.wang@neu.edu.

## Minor in Women's Studies

## REQUIRED COURSE

Complete one of the following courses:
SOCL 3402 Feminist Perspectives on Society 4 SH WMNS 1103 Women's Studies

## ELECTIVE COURSES

Complete four courses from the following list:

| AFAM 1109 | Foundations of Black Culture 1 <br> AFAM 2301 <br> Foundations of Black Culture 2 |
| :--- | :--- |
| AFAM 2320 | The Black Family |
| AFAM 2325 | African-American Women |
| or HIST 2325 | African-American Women <br> AFAM 2367 <br> AFAM 46 and Social Identity <br> Contemporary Issues: Race, Science, <br> and Technology |
| AFAM 4639 | Globalism, Racism, and Human <br> Rights |
| AFRS 1185 | Gender in the African Diaspora |
| AFRS 2392 African Diaspora |  |
| or HIST 2392 | African Diaspora <br> ANTH 2302 |
| Gender and Sexuality: A Cross- |  |
| Cultural Perspective |  |

CINE 3391
CINE 3500
CLTR 1265
CLTR 1280
CLTR 1504
CLTR 2501
COMM 2304
COMM 4623
CRIM 4010
ENGL 2223
ENGL 2300
ENGL 3489
ENGL 3600
ENGL 3671
ENGL 4663
HIST 1204
HIST 1242
HIST 1243
HIST 1259
or JWSS 2259
HIST 1507
HIST 2313

HIST 2350
HIST 2372
HIST 4600
LACS 1220

LING 2350
LING 3412
LING 3442
LING 3456
LITR 4565
MUSC 1106
POLS 2375
PSYC 2302
PSYC 2354
or CINE 2354
or IDSC 2354
PSYC 3464
RELS 3390
SOCL 1255
SOCL 1256
SOCL 1260
SOCL 1268
SOCL 1272
SOCL 1273
SOCL 1280
SOCL 1297
SOCL 3402
SOCL 3437

| Topics in Film | 4 SH |
| :---: | :---: |
| Film Theory | SH |
| Spanish Civil War on Film | SH |
| French Film and Culture | 4 SH |
| Introduction to Spanish Culture | 4 SH |
| Chinese Film: Gender and Ethnicity | 4 SH |
| Communication and Gender | 4 SH |
| Theories of Media and Culture | 4 SH |
| Gender, Crime, and Justice | 4 SH |
| Survey of American Literature 1 | 4 SH |
| Introduction to Shakespeare | SH |
| Shakespeare on Film | 4 SH |
| Major Figure | 4 SH |
| Multiethnic Literatures of the U.S. | 4 SH |
| Early African-American Literature | 4 SH |
| Third World Women | 4 SH |
| Women in America | 4 SH |
| American Images of China | 4 SH |
| Women in Jewish Culture | 4 SH |
| Women in Jewish Culture | 4 SH |
| Chinese Civilization in Her Eyes | 4 SH |
| Gender and Revolution in Russia and China | 4 SH |
| Modern China | 4 SH |
| Gender and Society in Modern Europe | 4 SH |
| Topics in Women’s History | 4 SH |
| Latino, Latin American, and Caribbean Studies | 4 SH |
| Linguistic Analysis | 4 SH |
| Language and Culture | 4 SH |
| Sociolinguistics | 4 SH |
| Language and Gender | 4 SH |
| Spanish Golden Age | 4 SH |
| Women in Music | 4 SH |
| Gender and Politics | 4 SH |
| Psychology of Women | 4 SH |
| Psychology and Film | 4 SH |
| Psychology and Film | 4 SH |
| Psychology and Film | 4 SH |
| Psychology of Language | 4 SH |
| Cults and Sects | 4 SH |
| Sociology of the Family | 4 SH |
| Violence in the Family | 4 SH |
| Gender in a Changing Society | 4 SH |
| The Social Movements of the 1960s | 4 SH |
| Social Roles in the Business World | 4 SH |
| Women Working | 4 SH |
| Sociology of Work | 4 SH |
| Sociology of Popular Culture | 4 SH |
| Feminist Perspectives on Society | 4 SH |
| Children and Youth in Contemporary Society | 4 SH |

SOCL 4520
Race, Class, and Gender
4 SH
SOCL 4530
WMNS 1103
WMNS 3451

Seminar in the Family
Women's Studies
Women's Studies Module

## GPA REQUIREMENT

2.000 GPA required in the minor

## INTERDISCIPLINARY FACILITIES

An interdisciplinary media training facility located on the second floor of Shillman Hall features two television studios; twenty-two Avid and ten Final Cut Studio state-of-the-art, nonlinear, digital video-editing systems; and a professional-level digital audio recording/editing/mixing facility. One of the television studios employs "greenroom" technology for video and digital art compositing. Qualified students may enroll in courses utilizing this facility through any of its participating departments (Art +Design, cinema studies, communication studies, history, journalism, music, or theatre) or through interdisciplinary studies. Note that these courses fill quickly; some require prerequisites; and many give preference to students whose majors require them. For field production, the studio offers an array of digital cameras and peripheral equipment including lights and microphones. For students who complete elementary and intermediate training in the studio, an interdisciplinary capstone production course is offered. For details about eligibility and availability, contact one of the participating departments or the studio manager, Ron Starr, at 617.373.2314.

Students have access to a number of modern facilities, whether participating in one of seven interdisciplinary game design and interactive media dual majors or the creative industries minor. Among these are a dedicated computer music lab, an advanced music and sound synthesis facility, a graphics and media development room, and a state-of-the-art multimedia development center that is also used by students in animation courses. The interactive media development center is the site of the program's capstone courses, in which students from all of the core game design and interactive media programs work together on team projects. In addition, the center is used by the guest speakers and lecturers who regularly appear on campus in support of the creative industries curricula.

Hardware and software in the multimedia center permit the production of interactive media creations that integrate live action and animated moving images, graphics, photographs, sound effects, and music. The center can operate independently or via networked interchange with digital art, digital music, and media production laboratories and studios on campus or through NUNET links to the Internet, with resources available elsewhere.

For more information on the creative industries program and its facilities, visit the creative industries Web site at www.ci.neu.edu or contact the program director, Terrence Masson, at t.masson@neu.edu.

## SPECIAL PROGRAMS

Additional information is available from involved departments and the Center for Academic Services, 1 Meserve Hall.

The availability of all special programs is contingent on meeting minimum enrollment numbers and, when an outside institution is involved, continued affiliation of that institution with the University. Overseas study programs are open to qualified middlers, juniors, and seniors with a cumulative grade-point average of 3.000 or higher.

## Transfer Program with Professional Schools

When approved for this transfer program, a preprofessional student may reduce by one year the time normally required for obtaining both the undergraduate and professional degrees. Students who have completed at least three-fourths of the work required for a baccalaureate degree in the College of Arts and Sciences and who are accepted into an approved professional school of dentistry, law, medicine, optometry, osteopathy, or veterinary medicine will be eligible for the Bachelor of Arts or Bachelor of Science degree at the end of their second year in a professional school. At least two-thirds of the work for the baccalaureate degree must be earned in residence at Northeastern, and all other College of Arts and Sciences requirements must be fulfilled. The residence requirement must be completed prior to entering the professional school.

## Northeastern University-Hebrew College Partnership

A cooperative relationship between Northeastern University and Hebrew College allows cross-registration and concurrent library privileges at both institutions, as well as an integrated five-year program through which students can earn a BA from Northeastern and an MA or MJEd from Hebrew College. For more information contact the Jewish studies program at 617.373.7045 or www.northeastern.edu/jewishstudies/.

## Marine Science

## The Three Seas Program (formerly East/West Marine Biology).

The Three Seas Program allows advanced undergraduate and beginning graduate students in biology and related areas to spend a year of field study in three diverse marine environments.

The program begins in the fall at Northeastern University's Marine Science Center in Nahant, twelve miles from the main campus. In January, students travel to the South Pacific to study tropical biology at UC Berkeley's Gump Marine Station on the island of Moorea, French Polynesia, located ten miles from Tahiti. The final segment of the program is conducted at the University of Washington's Friday Harbor Laboratories on San Juan Island, located approximately 70 miles north of Seattle and part of an archipelago that lies between the mainland and Vancouver Island. For more information, contact Sal Genovese at 781.581.7370, extension 311 or visit the Three Seas Program Web site at www.threeseas.neu.edu.

## Marine Science Center Summer Program in Marine Biology.

The summer program allows students to participate in intensive courses at the Marine Science Center (MSC). Students conduct independent research at the MSC laboratory throughout the year. Graduate students from other universities are encouraged to use the laboratory and field sites for thesis research.

## Massachusetts Bay Marine Studies Consortium. Northeastern

 University students may take classes at the Massachusetts Bay Marine Studies Consortium. The consortium's course offerings are interdisciplinary and seek to bridge academic disciplines and current concerns in the marine world. For more information, contact the marine studies program director, Professor Peter S. Rosen, at 617.373.4380.Sea Education Association. SEA Semester is an interdisciplinary program focusing on the sea in which students undertake course work ashore followed by a practical component at sea. The program combines intensive research in the areas of oceanography, maritime studies, and nautical science with handson experience aboard a traditional sailing ship. Piloting, celestial navigation, and practical seamanship are learned together with oceanographic sampling techniques and marine laboratory procedures during a six-week voyage on a ship sailing either on the Atlantic or Pacific Oceans. Critical thinking, problem-solving, team-building, and leadership skills are emphasized throughout the program. Some cruises focus on specialized topics including oceans and climate, Caribbean studies, or Polynesian studies. Through our affiliation with the Sea Education Association, SEA Semester courses earn Northeastern credit. The program is appropriate for students in biology, environmental and physical sciences, environmental studies, American studies, and most other areas within the liberal arts and sciences. For more information, contact the marine studies program director, Professor Peter S. Rosen, at 617.373.4380.

## The Center for the Arts

The Center for the Arts provides enrichment to the University and the surrounding community through arts presentation. A variety of main stage and artist-in-residency programs serve to support and develop the arts as a vital and integral component of the Northeastern community. With the academic arts departments, the center provides opportunity and support to enable students to become knowledgeable and active participants in the arts. The center presents and produces multicultural arts programs that serve the on-campus community as well as the general public.
www.neu.edu/daas

Emmett G. Price III, PhD
Associate Professor and Chair

Office: 132 Nightingale Hall
Phone: 617.373.3148
Fax: 617.373.2625
E-mail: aas@neu.edu

The diverse experiences of black people-in the United States, Africa, the Caribbean, South America, and other parts of the world-are the focus of the field of African-American studies. The curriculum is interdisciplinary in approach and includes historical, social and behavioral, and cultural studies. International studies and contemporary public policy issues are also integral parts of the program. In class, in co-op, and in internships, students have an opportunity to apply theoretical knowledge to real-world problems and concerns. Study-abroad programs exist in Ghana, Egypt, South Africa, the Caribbean, and Central and South America.

Students with successful training in African-American studies have the knowledge to meet the challenges posed by diverse racial, cultural, and ethnic groups in the United States and abroad. Many graduates attend professional schools or teach at the secondary or the college level. Others work in museums, libraries, or research centers; in business; or in public service, social service, or law-enforcement agencies.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BA in African-American Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.
AFRICAN-AMERICAN STUDIES MAJOR
REQUIREMENTS
Introductory Courses
Complete the following three courses:
AFAM 1101 African-American Studies $\quad 4 \mathrm{SH}$

## Literature

Complete the following course:
AFAM 4663 Early African-American Literature

## Research and Seminar

Complete the following two courses:

| AFAM 4700 | Advanced Seminar |
| :--- | :--- |
| AFRS 3310 | Applied Research in the African |

## Electives

Complete six African-American studies courses at the intermediate and advanced level from the following list: AFAM 2000 to AFAM 5999
AFRS 2000 to AFRS 5999

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## AFRICAN-AMERICAN STUDIES MAJOR CREDIT REQUIREMENT

Complete 48 semester hours in the major.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in African-American Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## AFRICAN-AMERICAN STUDIES MAJOR REQUIREMENTS

## Introductory Courses

Complete the following three courses:

| AFAM 1101 | African-American Studies | 4 SH |
| :--- | :--- | :--- |
| AFAM 1109 | Foundations of Black Culture 1 | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |

## Literature

Complete the following course:
AFAM 4663 Early African-American Literature

## Research and Seminar

Complete the following two courses:
AFAM $4700 \quad$ Advanced Seminar 4 SH

AFRS $3310 \quad$ Applied Research in the African 4 SH

## Electives

Complete six African-American studies courses at the
intermediate and advanced level from the following list:
AFAM 2000 to AFAM 5999
AFRS 2000 to AFRS 5999

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## AFRICAN-AMERICAN STUDIES MAJOR CREDIT REQUIREMENT <br> Complete 48 semester hours for the major.

UPPER-DIVISION ELECTIVES
Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## Minor in African-American Studies

REQUIRED COURSES
Complete the following four courses:

| AFAM 1101 | African-American Studies | 4 SH |
| :--- | :--- | :--- |
| AFAM 1109 | Foundations of Black Culture 1 | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| AFRS 3310 | Applied Research in the African <br> Diaspora | 4 SH |
| or AFAM 4700 | Advanced Seminar | 4 SH |

## ELECTIVE COURSE

Complete one additional course in consultation with your advisor.
GPA REQUIREMENT
2.000 GPA required in the minor

AMERICAN SIGN LANGUAGE-ENGLISH INTERPRETING
www.asl.neu.edu

Dennis R. Cokely, PhD
Professor and Director

Office: 400 Meserve Hall
Phone: 617.373.3064
Fax: 617.373.3065
E-mail contact: Dennis R. Cokely, Professor and Director, d.cokely@neu.edu

American Sign Language (ASL) is a language used by large numbers of people in the United States and Canada. By mastering ASL, students gain both access to the culture of Deaf America and insights into features of spoken language that are often taken for granted. Learning a modally different language gives students a new sense of the power of language and an appreciation of how it shapes their world. In this way, the mastery of ASL sharpens critical-thinking skills.

The goal of the program is to provide a firm foundation in language, linguistics, culture, and interpreting, plus a broad-based liberal arts education. American Sign Language courses are integral to degrees in human services with a specialization in Deaf studies and in linguistics with a focus on ASL.

Opportunities for ASL-English interpreters continue to increase, due to federal and state legislation. Graduates work as interpreters in such diverse areas as higher education, business, social service agencies, advanced technology, and theatre.

Northeastern's National and Regional Interpreter Education Centers seek to enhance the skills of interpreters currently working in the field and to increase the supply of competent interpreters throughout the United States.

## BS in American Sign Language

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## AMERICAN SIGN LANGUAGE MAJOR REQUIREMENTS

## American Sign Language

Complete the following six courses:
AMSL $1101 \quad$ Elementary ASL 1 SH
AMSL 1102 Elementary ASL 2 SH
AMSL $2101 \quad$ Intermediate ASL 1 SH
AMSL 2102 Intermediate ASL 24 SH
AMSL 3101 Advanced ASL 14 SH
AMSL 3102 Advanced ASL 2 SH

## Social and Cultural World

Complete the following two courses:
DEAF $1500 \quad$ Deaf People in Society 4 SH

DEAF 2500 Deaf History and Culture 4 SH

## Linguistics

Complete the following two courses:
DEAF $2700 \quad$ ASL Linguistics 4 SH
LING $1150 \quad$ Introduction to Language and 4 SH Linguistics

## Performance Interpreting

Complete the following course:
INTP $3550 \quad$ Performance Interpreting- 4 SH

## Interpreting

Complete the following five courses:
INTP $3500 \quad$ The Interpreting Profession 2 SH
INTP $3510 \quad$ Interpreting Inquiry Texts 4 SH
INTP $3515 \quad$ Interpreting Narrative Texts 4 SH
INTP $4510 \quad$ Interpreting Expository Texts 4 SH
INTP $4515 \quad$ Interpreting Persuasive Texts 4 SH

## Interpreting Practicum

Complete the following practicum:
INTP 4995 Interpreting Practicum 4 SH
Ethics
Complete the following two courses:
INTP $4650 \quad$ Ethical Decision Making 4 SH

INTP $4651 \quad$ Ethical Fieldwork 2 SH

## Research Capstone

Complete the following capstone course:
INTP $4940 \quad$ Interpreting Research Practicum 4 SH

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## AMERICAN SIGN LANGUAGE GPA REQUIREMENT

Minimum 2.750 GPA required in all ASL courses
Minimum 2.500 overall GPA required

## AMERICAN SIGN LANGUAGE CREDIT REQUIREMENT <br> Complete 76 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Human Services

NU CORE REQUIREMENTS
See page 26 for requirement list.

## AMERICAN SIGN LANGUAGE AND HUMAN SERVICES DUAL-MAJOR REQUIREMENTS

## American Sign Language

Complete the following six courses:
AMSL 1101 Elementary ASL 1
AMSL 1102 Elementary ASL 2
AMSL 2101 Intermediate ASL 1
AMSL 2102 Intermediate ASL 2
AMSL 3101 Advanced ASL 1
AMSL 3102 Advanced ASL 2
Social and Cultural World
Complete the following two courses:
DEAF $1500 \quad$ Deaf People in Society 4 SH
DEAF 2500 Deaf History and Culture 4 SH

## Linguistics

Complete the following two courses:
DEAF 2700 ASL Linguistics
LING 1150 Introduction to Language and Linguistics

## Performance Interpreting

Complete the following course:
INTP 3500 The Interpreting Profession
Interpreting
Complete the following course:
INTP 3510 Interpreting Inquiry Texts

## Human Services

Complete the following eight courses:

| HUSV 1101 | Human Services Professions |
| :--- | :--- |
| HUSV 2300 | Counseling in Human Services |
| HUSV 4700 | Senior Seminar in Human Services |
| PSYC 1101 | Foundations of Psychology |
| SOCL 1101 | Introduction to Sociology |
| SOCL 2324 | Human Services Research and <br>  <br> Evaluation <br> SOCL 3401 <br> SOCL 3440Social Policy and Intervention <br> Organizations |

## Integrative Course Work

Complete the two integrative courses below:
HUSV $4994 \quad$ Human Services Internship 6 SH

INTP $4940 \quad$ Interpreting Research Practicum 4 SH

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

[^0]
## AMERICAN SIGN LANGUAGE AND HUMAN SERVICES DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 88 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Psychology

NU CORE REQUIREMENTS
See page 26 for requirement list.

## AMERICAN SIGN LANGUAGE AND PSYCHOLOGY DUAL-MAJOR REQUIREMENTS

## American Sign Language

Complete the following five courses:

| AMSL 1101 | Elementary ASL 1 | 4 SH |
| :--- | :--- | :--- |
| AMSL 1102 | Elementary ASL 2 | 4 SH |
| AMSL 2101 | Intermediate ASL 1 | 4 SH |
| AMSL 2102 | Intermediate ASL 2 | 4 SH |
| AMSL 3101 | Advanced ASL 1 | 4 SH |

## Social and Cultural World

Complete the following two courses:

| DEAF 1500 | Deaf People in Society | 4 SH |
| :--- | :--- | :--- |
| DEAF 2500 | Deaf History and Culture | 4 SH |

## Linguistics

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| DEAF 2700 | ASL Linguistics | 4 SH |
| LING 1150 | Introduction to Language and | 4 SH |
|  | Linguistics |  |

## Performance Interpreting

Complete the following course:
INTP $3500 \quad$ The Interpreting Profession 2 SH
Interpreting
Complete the following course:
INTP $3510 \quad$ Interpreting Inquiry Texts 4 SH
Psychology
Complete the following four courses:

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| or PSYC 3466 | Cognition | 4 SH |
| PSYC 4524 | Cognitive Development | 4 SH |

## Psychology Lab or Directed Study

Complete one additional psychology lab or one psychology directed study:

## LAB

| AFAM 4618 | Laboratory in Community Psychology | 4 SH |
| :---: | :---: | :---: |
| PSYC 3536 | Developing Education and Intervention Programs for Eating Disorders | 4 SH |
| PSYC 4600 | Research Design in Psychology | 4 SH |
| PSYC 4602 | Experiments in Learning and Motivation | 4 SH |
| PSYC 4604 | Laboratory in Learning and Motivation | 4 SH |
| PSYC 4606 | Laboratory in Psychobiology | 4 SH |
| PSYC 4608 | Laboratory in Animal Behavior Research | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4614 | Laboratory in Social Psychology | 4 SH |
| PSYC 4616 | Laboratory in Personality | 4 SH |
| PSYC 4620 | Laboratory in Industrial/Organizational Psychology | 4 SH |
| PSYC 4622 | Laboratory in Sensation and Perception | 4 SH |
| DIRECTED STUDY |  |  |
| PSYC 4992 | Directed Study | 4 SH |
| PSYC 4996 | Experiential Education Directed Study | 4 SH |

Personal/Social Bases of Behavior (Area A)
Complete two courses from the following list:
PSYC $3400 \quad$ Personality 4 SH

PSYC 3402 Social Psychology 4 SH
PSYC 3404 Developmental Psychology 4 SH
PSYC 3406 Abnormal Psychology 4 SH
Biological/Cognitive Bases of Behavior (Area B)
Complete one course from the following list:
PSYC $3450 \quad$ Learning and Motivation 4 SH
PSYC $3452 \quad$ Sensation and Perception 4 SH
PSYC 3458 Psychobiology 4 SH
PSYC $3464 \quad$ Psychology of Language 4 SH
or PSYC 3466 Cognition 4 SH

## Integrative Course Work

Complete the following two integrative courses:
INTP $4940 \quad$ Interpreting Research Practicum 4 SH
PSYC $4658 \quad$ Seminar in Psycholinguistics 4 SH
EXPERIENTIAL LEARNING REQUIREMENT
Complete one course in experiential education. Please see department for approved courses.

AMERICAN SIGN LANGUAGE AND PSYCHOLOGY DUAL-MAJOR GPA REQUIREMENT
Minimum 2.750 GPA required in all ASL courses
Minimum 2.500 overall GPA required

## AMERICAN SIGN LANGUAGE AND PSYCHOLOGY DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 82 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Theatre

## NU CORE REQUIREMENTS

See page 26 for requirement list.

| AMERICAN SIGN LANGUAGE AND THEATRE DUAL- |
| :--- |
| MAJOR REQUIREMENTS |
| American Sign Language  <br> Complete the following five courses:  <br> AMSL 1101 Elementary ASL 1 <br> AMSL 1102 Elementary ASL 2 <br> AMSL 2101 Intermediate ASL 1 <br> AMSL 2102 Intermediate ASL 2 <br> AMSL 3101 Advanced ASL 1 4 SH |

## Social and Cultural World

Complete the following two courses:
DEAF $1500 \quad$ Deaf People in Society 4 SH
DEAF $2500 \quad$ Deaf History and Culture 4 SH
Linguistics

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| DEAF 2700 | ASL Linguistics | 4 SH |
| LING 1150 | Introduction to Language and | 4 SH |
|  | Linguistics |  |

## Performance Interpreting

Complete the following course:
INTP $3550 \quad$ Performance Interpreting- 4 SH
Interpreting for the Theatre
Interpreting
Complete the following course:
INTP $3500 \quad$ The Interpreting Profession 2 SH

## Theatre

Complete the following eleven courses. A minimum grade of C is required for all theatre courses:

| THTR 1101 | Art of the Theatre | 4 SH |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 SH |
| THTR 1131 | Technical Theatre 1 | 4 SH |
| THTR 1250 | Voice and Movement 1 for Theatre | 4 SH |
| THTR 1270 | Theatrical Design | 4 SH |
| THTR 2300 | Theatre History | 4 SH |
| THTR 2325 | Script Analysis for the Stage | 4 SH |

THTR 3500
THTR 3550
THTR 4701
THTR 4804

Dramatic Theory/Criticism
4 SH
4 SH
4 SH
1 SH

## Integrative Course Work

Complete the two integrative courses below:
INTP 4940 Interpreting Research Practicum

4 SH
THTR 4804 Theatre Practicum

## EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

## AMERICAN SIGN LANGUAGE AND THEATRE DUALMAJOR GPA REQUIREMENT

Minimum 2.750 GPA required in all ASL courses
Minimum 2.500 overall GPA required

## AMERICAN SIGN LANGUAGE AND THEATRE DUALMAJOR CREDIT/GRADE REQUIREMENT

Complete 88 semester hours in the major. A minimum grade of C is required for all theatre courses.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## ARCHITECTURE

www.architecture.neu.edu

George Thrush, MArch
Professor and Director, School of Architecture

Office: 151 Ryder Hall
Phone: 617.373.4637
Fax: 617.373.7080
E-mail contact: Danielle Walquist, Office Manager, d.walquist@neu.edu

Architecture is the context for civic life. In an age of increasingly rapid technological and social change, architects must find ways to forge connections between our past and our future. That involves critical thinking about many complex contemporary issues, such as the relationship of public and private life, the interaction between formal and political ideas in cities, and the
role of technology in contemporary architecture and design. Because the process of designing buildings involves the synthesis of disparate elements, it can also translate into strategies for approaching a wide range of other problems not traditionally understood to be "architecture." At Northeastern, we connect specific problem solving inherent to architectural understanding with the larger context of contemporary cities.

The curriculum teaches students to conceptualize, synthesize, and represent complex architectural and urban issues. The program focuses on core skills and critical thinking as preparation for both professional practice and advanced study. The curriculum in the design studio encompasses two major themes: first, the studio projects focus on the art of building, and second, the projects explore how buildings affect urban conditions. Buildings meet both our individual need for shelter and our shared need for cultural meaning. The art of building includes the study of building construction and technology, as well as the cultural messages created by the expression of material, structure, and form in architecture. The contemporary city is our laboratory. This urban focus requires that students integrate their own creative impulses with the future of the society of which they will be a part. By building on the practical and technical training afforded by co-op to develop core professional skills, the curriculum focuses on architecture's fundamental aesthetic, technological, social, and political aspects.

With the effective synthesis of the art of building with urban issues, Northeastern's program in architecture is becoming a leader in identifying opportunities for civic representation, urban development, and neighborhood design. Northeastern's students are in demand in area offices because of their combination of professional competence and fluency in urban architectural issues. There are opportunities for interdisciplinary cooperation in urbanoriented research and creative work in areas such as GIS mapping, urban economics and development, new forms of spatial and visual communication, and public policy. Additionally, Northeastern's urban focus is applied globally in the semester abroad in Rome in the middler year.

## Transferring to the Major

## INTERNAL TRANSFERS

A minimum cumulative GPA of 3.200 is necessary to transfer into architecture. In addition, students must take the following four freshman architecture courses:
ARCH $1310 \quad$ History of World Architecture $1 \quad 4$ SH

ARCH $1320 \quad$ History of World Architecture 2 SH
ARCH $1110 \quad$ Fundamental Architectural 6 SH
Representation
ARCH $1120 \quad$ Fundamental Architectural Design 6 SH
in the appropriate order and maintain a minimum of a 3.200 GPA
in order to be officially admitted into the program.

## EXTERNAL TRANSFERS

Full-time architecture faculty members may evaluate nonstudio courses for conformity with NU requirements using transcripts and course descriptions. Any student seeking studio course credit (drawing, technology, or design) must present a portfolio for review and evaluation.

There is no portfolio requirement for freshman applicants.

## Academic Progression Standards

A minimum GPA of 2.500 is required to remain in the major. Students below these averages will not be allowed to continue in the major.

To graduate, a student must have a 2.500 GPA in architecture.

## BS in Architecture

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## ARCHITECTURE MAJOR REQUIREMENTS

## Breadth Courses

## CALCULUS

Complete the following course:

## MATH 1241 Calculus 1

PHYSICS
Complete the following course: PHYS 1141 General Physics

## Architecture Requirements

## FOUNDATION SKILLS

Complete the following four courses:

| ARCH 1110 | Fundamental Architectural <br> Representation | 6 SH |
| :--- | :--- | :--- |
| ARCH 1120 | Fundamental Architectural Design | 6 SH |
| ARCH 1310 | History of World Architecture 1 | 4 SH |
| ARCH 1320 | History of World Architecture 2 | 4 SH |
| HISTORY/THEORY |  |  |
| Complete the following four courses: |  |  |

Complete the following four courses:

| ARCH 2330 | Nineteenth-Century Architecture and Urbanism | 4 SH |
| :---: | :---: | :---: |
| ARCH 2340 | Twentieth-Century Architecture and Urbanism | 4 SH |
| ARCH 3350 | American Houses and Housing | 4 SH |
| ARCH 3361 | Rome Architecture and Urbanism | 4 SH |
| TECHNOLOGY |  |  |
| Complete the following five courses: |  |  |
| ARCH 2230 | Structures 1: Statics | 4 SH |
| ARCH 2240 | Structures 2: Tectonics | 4 SH |
| ARCH 3450 | Modeling and Design Communication | 4 SH |
| ARCH 5210 | Environmental Systems | 4 SH |
| ARCH 5220 | Integrated Building Systems | 4 SH |

## STUDIO DESIGN

Complete the following six courses:

| ARCH 2130 | Studio 1: Site, Type, Composition | 6 SH |
| :--- | :--- | :--- |
| ARCH 2140 | Studio 2: Pattern and Urban Design | 6 SH |
| ARCH 3155 | Rome Studio | 6 SH |
| ARCH 3170 | 1960s Urbanism | 4 SH |
| ARCH 5110 | Housing and Aggregation | 6 SH |
| ARCH 5120 | Comprehensive Design Studio | 6 SH |

ARCHITECTURE SEMINARS
Complete the following two courses:

| ARCH 3362 | Rome Theory Seminar | 4 SH |
| :--- | :--- | :--- |
| ARCH 5310 | Architecture Seminar | 4 SH |

## Experiential Education

The experiential education requirement is satisfied by the following course, taken as part of the studio design requirement:
ARCH $5110 \quad$ Housing and Aggregation 6 SH

## MAJOR GPA REQUIREMENT

Minimum 2.500 GPA required.

## ARCHITECTURE MAJOR CREDIT REQUIREMENT

Complete 112 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

145 total semester hours required
Minimum 2.000 GPA required

## Minor in Architectural History

This minor is not available to architecture majors.

## REQUIRED COURSES

Complete the following four courses:

| ARCH 1310 | History of World Architecture 1 | 4 SH |
| :--- | :--- | :--- |
| ARCH 1320 | History of World Architecture 2 | 4 SH |
| ARCH 2330 | Nineteenth-Century Architecture and | 4 SH |
|  | Urbanism |  |
| ARCH 2340 | Twentieth-Century Architecture and <br> Urbanism | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## ART + DESIGN

www.art.neu.edu

TBA
Chair

Office: 239 Ryder Hall
Phone: 617.373.2347
Fax: 617.373.8535
E-mail contact: Judy Ulman, Administrative Assistant, j.ulman@neu.edu

The visual arts are our oldest form of artistic expression. Yet today, the newest digital technologies have transformed and expanded artistic practice, production, and dissemination. More than ever, the ability to understand and use visual language is an essential part of the contemporary world. The Department of Art + Design is committed to teaching visual literacy and effective communication in many forms within the context of a broad liberal arts education. Excellent faculty and facilities make for a supportive and active place to study art and design.

## BA in Art

The art major at Northeastern University is a general studio-based program that balances art history with studio art projects and classes in drawing and painting. It focuses on a well-rounded liberal arts education with a breadth of general studies in the arts and humanities, the natural and physical sciences, and the social sciences. Art majors have the option to take introductory courses in digital art and graphic design. A selection of studio courses can also be taken at the nearby School of the Museum of Fine Arts, Boston. Art + Design currently has three faculty-led, studio art programs in Ireland, Italy, and Spain. These intensive art programs run during the summer semesters.

## BFA in Digital Art

Digital art is an evolving field for artists who use the computer as the primary medium for exploring, creating, and distributing their works of art. The digital art major at Northeastern University comprises the three principle technologies of dynamic and static image generation-photography, animation, and video. Students have the option of either focusing on one of these areas or creating their own path by exploring courses from all the areas. An intensive studio-based program, the curriculum seeks to provide students with knowledge in the efficacy of digital media in conjunction with critical theory. Extensive computer facilities afford students an opportunity to become highly proficient in the leading-edge skills necessary to produce their work.

## BFA in Graphic Design

Graphic design is the practice of visualizing ideas and information to enhance human understanding. The graphic design major at Northeastern focuses on the ability to create and compose visual and verbal components to construct meaning in diverse knowledge fields. An intensive studio-based program, the curriculum balances design history and theory with studio projects in both dynamic and static media to provide a broad understanding of the principles of perception and communication. As active participants in the interpretation and production of meaning itself, students have the opportunity to integrate the many facets of their University-based liberal arts experience. Extensive computer facilities afford students an opportunity to become proficient in the leading-edge skills necessary to produce their work for both the virtual and concrete worlds.

## BFA in Studio Art

A new joint BFA degree program in collaboration with the School of the Museum of Fine Arts, Boston (SMFA). The studio art major consists predominately of studio art courses with an accompanying group of Art + Design history courses and general electives. Students in this program take their studio art classes at the SMFA (located directly adjacent to Northeastern's campus) and their Art + Design history courses and general electives at Northeastern. The BFA in Studio Art degree is awarded by Northeastern. This program allows you to explore a wide range of media, including ceramics, drawing, film, glass, metals, painting, performance, print and paper, sculpture, and sound.

## Additional Dual Majors and Minors

The Department of Art + Design also offers the following dual majors and minors:

- Game design dual majors: For specific requirements and electives, see "BFA in Digital Art and Game Design" beginning on page 63 and "BFA in Graphic Design and Game Design" beginning on page 66 .
- Interactive media dual majors: For specific requirements and electives, see "BFA in Digital Art and Interactive Media" beginning on page 64 and "BFA in Graphic Design and Interactive Media" beginning on page 67.
- Computer science and digital art dual major: For specific requirements and electives, see "BS in Computer Science and Digital Art" beginning on page 263.
- Minors in Art + Design and art history are also available.


## Admission Requirements for Art + Design

There are specific admissions criteria for students entering majors in the Art + Design department. See "Admission Requirements for Art + Design" in the Admission section of this catalog, page 5.

## Transferring to the Major

Students already enrolled at the University may apply to transfer into the Department of Art + Design. Students wishing to transfer should do the following:

- Submit a transfer petition to the chair of the department.
- Apply with a minimum GPA of 2.500 .
- Have the Art + Design chair assign them a faculty advisor.
- Fulfill the portfolio requirement at the time of application or on a schedule designated by the department chair.


## Academic Progression Standards

Same as college standards.

## BA in Art

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ART + DESIGN CORE <br> Art + Design at Northeastern

Complete the following course:
ARTF 1000 Art + Design at Northeastern
1 SH
Art + Design Foundations
Complete the following eight courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |
| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |

Art + Design History
Complete the following three courses:

| ARTH 1110 | Art + Design History before 1400 | 4 SH |
| :--- | :--- | :--- |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |

## ART REQUIREMENTS

## Required Courses

Complete the following three courses:

| ARTH 2211 | Art + Design History, 1945 to Present | 4 SH |
| :--- | :--- | :--- |
| ARTS 4540 | Contemporary Directions in Art | 4 SH |
| ARTS 4541 | Interarts | 4 SH |

## Art Electives

Complete two courses from the following list with corresponding tools courses, as indicated:
ART
ARTE $2500 \quad$ Art + Design Abroad: Studio 4 SH
ARTE 2501 Art + Design Abroad: History 4 SH
ARTE $4901 \quad$ Special Topics in Art + Design Studio 4 SH
ARTH $2213 \quad$ Nineteenth-Century Art 4 SH
ARTH $2214 \quad$ American Art 4 SH
ARTH $3410 \quad$ Art of the African Diaspora 4 SH
ARTS $2340 \quad$ Painting Basics 4 SH
ARTS $2341 \quad$ Figure Drawing 4 SH
ARTS $3449 \quad$ Drawing in Mixed Media 4 SH
DIGITAL ART
ARTD $2360 \quad$ Photo Basics 4 SH
with ARTD 2361 Photo Tools 1 SH
ARTD $2370 \quad$ Animation Basics 4 SH
with ARTD 2371 Animation Tools 1 SH
ARTD $2380 \quad$ Video Basics 4 SH
with ARTD 2381 Video Tools 1 SH
ARTD $3460 \quad$ Photography 1 SH
ARTD 3470 Animation Studio 14 SH
ARTD $3480 \quad$ Video 1 SH
ARTD $4560 \quad$ Photography 2 SH
ARTD 4570 Animation Studio 2 SH
ARTD 4575 Animation Studio 3 SH
ARTD 4580 Video 2 SH
ARTD $4660 \quad$ Studio Photography 4 SH
ARTD 4661 Alternative Photographic Processes 4 SH
ARTD 4680 Video 3 SH

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BFA in Digital Art

NU CORE REQUIREMENTS
See page 26 for requirement list.

## ART + DESIGN CORE

Art + Design at Northeastern
Complete the following course:
ARTF $1000 \quad$ Art + Design at Northeastern 1 SH

## Art + Design Foundations

Complete the following eight courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |


| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| :--- | :--- | :--- |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |

Art + Design History
Complete the following three courses:

| ARTH 1110 | Art + Design History before 1400 | 4 SH |
| :--- | :--- | :--- |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |

## DIGITAL ART REQUIREMENTS

## Photography, Animation, and Video

Complete the following five courses with corresponding tools courses, as indicated:

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| ARTD 4530 | Contemporary Directions in Digital | 4 SH |
|  | $\quad$ Art |  |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |

Digital Art Electives
Complete four courses from the digital art or art lists:
DIGITAL ART
ARTD $3460 \quad$ Photography 1 SH
ARTD 3470 Animation Studio 1 SH
ARTD $3480 \quad$ Video 1 SH
ARTD $4560 \quad$ Photography 2 SH
ARTD $4570 \quad$ Animation Studio 2 SH
ARTD 4575 Animation Studio 3 SH
ARTD 4580 Video 2 SH
ARTD $4660 \quad$ Studio Photography 4 SH
ARTD 4661 Alternative Photographic Processes 4 SH
ARTD 4680 Video 3 SH
ART
ARTE 2500
ARTE 2501
ARTE 4901
ARTH 2213
ARTH 2214
ARTH 3410
ARTS 2340
ARTS 2341
ARTS 3449

## Design Requirement

Complete the following course with corresponding tools course:
ARTG $2250 \quad$ Typography $1 \quad 4$ SH
with ARTG 2251 Type Tools 1 SH

## Design Elective

Complete one course from the following list:

| ARTG 2252 | Graphic Design 1 | 4 SH |
| :--- | :--- | :--- |
| ARTG 3351 | Time-Based Design | 4 SH |
| ARTG 3352 | Interactive Design | 4 SH |

Digital Art Degree Project
Complete the following course:
ARTD $4670 \quad$ Digital Art Degree Project 4 SH

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BFA in Graphic Design

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## ART + DESIGN CORE

Art + Design at Northeastern
Complete the following course:
ARTF $1000 \quad$ Art + Design at Northeastern 1 SH

## Art + Design Foundations

Complete the following eight courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |
| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools |  |
| Art + Design History | 1 SH |  |
| Complete the following four courses: |  |  |
| ARTH 1110 | Art + Design History before 1400 | 4 SH |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |
| ARTH 2211 | Art + Design History, 1945 to Present | 4 SH |

## GRAPHIC DESIGN REQUIREMENTS

## Design

Complete the following six courses with corresponding tools course, as indicated:

| ARTG 2250 | Typography 1 | 4 SH |
| :--- | :--- | :--- |
| with ARTG 2251 | Type Tools | 1 SH |
| ARTG 2252 | Graphic Design 1 | 4 SH |
| ARTG 3350 | Typography 2 | 4 SH |
| ARTG 3450 | Graphic Design 2 | 4 SH |
| ARTG 3451 | Information Design | 4 SH |
| ARTG 4550 | Contemporary Directions | 4 SH |
|  | $\quad$ in Graphic Design |  |
| 4D Design Electives |  |  |
| Complete two courses from the following list: |  |  |
| ARTG 3351 | Time-Based Design | 4 SH |
| ARTG 3352 | Interactive Design | 4 SH |
| ARTG 3451 | Information Design | 4 SH |
| ARTG 4553 | Environmental Design | 4 SH |

## Design Elective

Complete the typography course or the topics course listed below, or complete one additional 4D elective not previously taken from the above list "4D Design Electives."

| TYPOGRAPHY |  |  |
| :--- | :--- | :--- |
| ARTG 4554 | Typography 3 | 4 SH |
| TOPICS |  |  |
| ARTE 4901 | Special Topics in Art + Design Studio | 4 SH |
| Art Elective |  |  |
| Complete one course with corresponding tools course, as |  |  |
| indicated, from the following list: |  |  |
| ARTD 2360 | Photo Basics | 4 SH |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |

Graphic Design Degree Project
Complete the following course:
ARTG $4551 \quad$ Graphic Design Degree Project 4 SH

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BFA in Studio Art

The BFA in Studio Art is a joint degree program offered in collaboration with the School of the Museum of Fine Arts, Boston. Art, design history, and general education requirements are
offered at Northeastern University, and studio art courses, which are determined in consultation with School of Museum of Fine Arts academic advisors, are targeted to each student's unique program of study. For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "SelfService" tab, then on "My Degree Audit."

## BFA in Digital Art and Game Design

## NU CORE REQUIREMENTS

See page 26 for requirement list.
DIGITAL ART COURSES
Art + Design Learning Community
Complete the following course:
ARTF $1000 \quad$ Art + Design at Northeastern 1 SH
Art + Design Foundations
Complete the following ten courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |

## Digital Art Requirements

Complete two of the following courses with corresponding tools courses:

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |

Digital Art Electives
Complete two of the following courses:

| ARTD 3460 | Photography 1 | 4 SH |
| :--- | :--- | :--- |
| ARTD 3470 | Animation Studio 1 | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| ARTD 4560 | Photography 2 | 4 SH |
| ARTD 4570 | Animation Studio 2 | 4 SH |
| ARTD 4580 | Video 2 | 4 SH |

## GENERAL REQUIREMENTS FOR GAME DESIGN DUAL MAJORS

Social Science Level 1
Complete the following course:
PSYC 1101 Foundations of Psychology
Mathematics
Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games
4 SH
Computer Science
Complete the following course with corresponding lab:
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 4$ SH
with CS 2501 Lab for CS 25001 SH

## Ethics and Culture

Complete one of the following courses. This course should be taken only after the student has completed 56 semester hours:
COMM $1220 \quad$ Media, Culture, and Society 4 SH
PHIL $1145 \quad$ Technology and Human Values 4 SH
SOCL $4528 \quad$ Computers and Society 4 SH

## GAME DESIGN COURSES

## Game Design

Complete the following seven courses:
GAME $1110 \quad$ Games and Society 4 SH
GAME $2150 \quad$ Programming for Games 4 SH
GAME $3300 \quad$ Game Interface Design 4 SH
GAME $3700 \quad$ Game Projects: Preproduction 4 SH
GAME $3800 \quad$ Game Projects: 4 SH

GAME $4700 \quad$ Game Design Capstone $1 \quad 4$ SH
GAME 4701 Game Design Capstone 24 SH

## Interactive Media

Complete the following course:
IM $2100 \quad$ Digital Narrative 14 SH

## CREATIVE INDUSTRIES ELECTIVES

Complete three courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:
Art + Design
ARTH 2210 Art + Design History, 1900 to 19454 SH
ARTH $2212 \quad$ Survey of the Still and Moving Image 4 SH
Graphic Design
ARTG $2250 \quad$ Typography 1 SH
with ARTG 2251 Type Tools 1 SH
ARTG $2252 \quad$ Graphic Design 1 SH
ARTG 3350 Typography 2 SH

| Interactive Media |  |  |
| :--- | :--- | :--- |
| IM 1110 | Interactive Media and Society | 4 SH |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 2200 | Digital Narrative 2 | 4 SH |
| IM 2300 | Managing Media Development | 4 SH |


| IM 2400 | Web Design and Development | 4 SH |
| :--- | :--- | :--- |
| with IM 2401 | Web Development Tools | 1 SH |
| IM 4992 | Directed Study | 4 SH |
| IM 4993 | Independent Study | 4 SH |

Computer Science
CS $2510 \quad$ Fundamentals of Computer Science $2 \quad 4$ SH
with CS 2511 Lab for CS $2510 \quad 1$ SH
CS 2800 Logic and Computation 4 SH
with CS 2801 Lab for CS $2800 \quad 1$ SH

CS 3200
CS 3500
CS 3800
CS 4100
CS 4300
CS 4400
CS 4550
CS 4800
IS 4300
Psychology
PSYC $3452 \quad$ Sensation and Perception 4 SH
PSYC $3464 \quad$ Psychology of Language 4 SH
PSYC $3466 \quad$ Cognition 4 SH

## REQUIRED GENERAL ELECTIVES

Complete two general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

138 total semester hours required
Minimum 2.000 GPA required

## BFA in Digital Art and Interactive Media

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## DIGITAL ART REQUIREMENTS

Art + Design at Northeastern
Complete the following course:
ARTF $1000 \quad$ Art + Design at Northeastern 1 SH

## Art + Design Foundations

Complete the following ten courses with corresponding tools courses:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |


| ARTF 1122 | 2D Foundation | 4 SH |
| :--- | :--- | :--- |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |

## Graphic Design

Complete the following course with corresponding tools course:

| ARTG 2250 | Typography 1 | 4 SH |
| :--- | :--- | :--- |
| with ARTG 2251 | Type Tools | 1 SH |

Digital Art Midlevel Studios
Complete two of the following courses with corresponding tools courses:

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |

## Digital Art Electives

Complete two courses from the following list:

| ARTD 3460 | Photography 1 |
| :--- | :--- |
| ARTD 3470 | Animation Studio 1 |
| ARTD 3480 | Video 1 |
| ARTD 4560 | Photography 2 |
| ARTD 4570 | Animation Studio 2 |
| ARTD 4580 | Video 2 |
| INTERACTIVE MEDIA REQUIREMENTS |  |
| Interactive Media Courses |  |
| Complete the following seven courses: |  |
| IM 1110 | Interactive Media and Society |
| IM 2100 | Digital Narrative 1 |
| IM 2250 | Programming for Digital Media |
| IM 2300 | Managing Media Development |
| IM 2400 | Web Design and Development |
| with IM 2401 | Web Development Tools |
| IM 4700 | Interactive Media Capstone 1 |
| IM 4701 | Interactive Media Capstone 2 |

## GENERAL REQUIREMENTS

## Social Science Level 1

Complete the following course:
PSYC 1101 Foundations of Psychology

## Mathematics

Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games

## Computer Science

Complete the following course:
CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS $2501 \quad$ Lab for CS 25001 SH

## Ethics and Culture

Complete one of the following courses. This course should be taken only after the student has completed 56 semester hours:

| COMM 1220 | Media, Culture, and Society | 4 SH |
| :--- | :--- | :--- |
| PHIL 1145 | Technology and Human Values | 4 SH |
| SOCL 4528 | Computers and Society | 4 SH |

## CREATIVE INDUSTRIES ELECTIVES

Complete three courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

## Interactive Media

| IM 2200 | Digital Narrative 2 | 4 SH |
| :--- | :--- | :--- |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 3250 | Physical Computing | 4 SH |
| IM 3500 | Cross-Media Marketing <br> and Communication <br>  <br>  <br> IM 3arket Analysis <br> for the Creative Industries | 4 SH |
|  | Interface and Virtual Environments | 4 SH |
| IM 3700 | Directed Study |  |
| IM 4992 | Independent Study | 4 SH |
| IM 4993 |  | 4 SH |
| Graphic Design |  |  |
| ARTG 2252 | Graphic Design 1 | 4 SH |
| ARTG 3350 | Typography 2 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |
| Digital Art |  |  |
| ARTD 2360 | Photo Basics | 4 SH |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| ARTD 3460 | Photography 1 | 4 SH |
| ARTD 3470 | Animation Studio 1 | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| ARTD 4560 | Photography 2 | 4 SH |
| ARTD 4570 | Animation Studio 2 | 4 SH |
| ARTD 4580 | Video 2 | 4 SH |

Computer Science
CS 2510 Fundamentals of Computer Science 24 SH
with CS $2511 \quad$ Lab for CS 25101 SH
CS 2800 Logic and Computation 4 SH
with CS $2801 \quad$ Lab for CS 28001 SH

CS 3200
CS $3500 \quad$ Object-Oriented Design 4 SH
CS 3800 Theory of Computation 4 SH
CS $4100 \quad$ Artificial Intelligence 4 SH

| CS 4300 | Computer Graphics | 4 SH |
| :--- | :--- | :--- |
| CS 4400 | Programming Languages | 4 SH |
| CS 4550 | Web Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |
| IS 4300 | Human Computer Interaction | 4 SH |
| Psychology |  |  |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## REQUIRED GENERAL ELECTIVES

Complete three general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

140 total semester hours required
Minimum 2.000 GPA required

## BFA in Graphic Design and Game Design

NU CORE REQUIREMENTS
See page 26 for requirement list.

## GRAPHIC DESIGN COURSES

Art + Design Learning Community
Complete the following course:
ARTF $1000 \quad$ Art + Design at Northeastern 1 SH
Art + Design Foundations
Complete the following ten courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :---: | :---: | :---: |
| ARTF 1104 | Color 2 Foundation | 1 SH |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |

Graphic Design Requirements
Complete the following five courses:
ARTG 2250 Typography 14 SH
ARTG $2252 \quad$ Graphic Design 1 SH

4 SH
4 SH
4 SH
4D Design Elective
Complete one of the following courses:

| ARTG 3351 | Time-Based Design | 4 SH |
| :--- | :--- | :--- |
| ARTG 4552 | Interactive Information Design | 4 SH |
| ARTG 4553 | Environmental Design | 4 SH |
| GENERAL REQUIREMENTS FOR GAME DESIGN |  |  |
| DUAL MAJORS |  |  |

## Social Science Level 1

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## Mathematics

Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games 4 SH

## Computer Science

Complete the following course with corresponding lab:
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 4 \mathrm{SH}$
with CS 2501 Lab for CS 25001 SH

## Ethics and Culture

Complete one of the following courses. This course should be taken only after the student has completed 56 semester hours:

| COMM 1220 | Media, Culture, and Society | 4 SH |
| :--- | :--- | :--- |
| PHIL 1145 | Technology and Human Values | 4 SH |
| SOCL 4528 | Computers and Society | 4 SH |

## GAME DESIGN COURSES

## Game Design

Complete the following seven courses:
GAME $1110 \quad$ Games and Society 4 SH

GAME $2150 \quad$ Programming for Games 4 SH
GAME $3300 \quad 4$ SH
GAME $3700 \quad$ Game Projects: Preproduction 4 SH
GAME $3800 \quad$ Game Projects: 4 SH
Assets and Prototyping
GAME $4700 \quad$ Game Design Capstone 14 SH
GAME 4701 Game Design Capstone 24 SH

## Interactive Media

Complete the following course:
IM $2100 \quad$ Digital Narrative $1 \quad 4$ SH

## CREATIVE INDUSTRIES ELECTIVES

Complete two courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

## Game Design

| GAME 3150 | Game Design Algorithms | 4 SH |
| :--- | :--- | :--- |
| GAME 3250 | Artificial Intelligence for Games | 4 SH |
| GAME 3400 | Level Design and Game Architecture | 4 SH |


| Digital Art |  |  |
| :--- | :--- | :--- |
| ARTD 2360 | Photo Basics | 4 SH |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |
| Interactive Media |  |  |
| IM 1110 | Interactive Media and Society | 4 SH |
| IM 2200 | Digital Narrative 2 | 4 SH |
| IM 2300 | Managing Media Development | 4 SH |
| IM 2400 | Web Design and Development | 4 SH |
| with IM 2401 | Web Development Tools | 1 SH |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 4992 | Directed Study | 4 SH |
| IM 4993 | Independent Study | 4 SH |
| Computer Science |  |  |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| Psychology |  |  |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## REQUIRED GENERAL ELECTIVES

Complete two general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

138 total semester hours required
Minimum 2.000 GPA required

## BFA in Graphic Design and Interactive Media

NU CORE REQUIREMENTS
See page 26 for requirement list.

## GRAPHIC DESIGN REQUIREMENTS

Art + Design at Northeastern
Complete the following course:
ARTF 1000 Art + Design at Northeastern
1 SH
Art + Design Foundations
Complete the following eight courses with corresponding tools courses, as indicated:

| ARTF 1102 | Color 1 Foundation | 1 SH |
| :--- | :--- | :--- |
| ARTF 1104 | Color 2 Foundation | 1 SH |


| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| :---: | :---: | :---: |
| ARTF 1121 | Drawing 2 Foundation | 4 SH |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |
| Art + Design History |  |  |
| Complete the following two courses: |  |  |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |
| Graphic Design |  |  |
| Complete the follo course, as indicated | wing five courses with corresponding d: |  |


| ARTG 2250 | Typography 1 | 4 SH |
| :--- | :--- | :--- |
| with ARTG 2251 | Type Tools | 1 SH |
| ARTG 2252 | Graphic Design 1 | 4 SH |
| ARTG 3350 | Typography 2 | 4 SH |
| ARTG 3450 | Graphic Design 2 | 4 SH |
| ARTG 3451 | Information Design | 4 SH |
| Graphic Design | Elective |  |
| Complete one course from the following list: |  |  |
| ARTG 3351 | Time-Based Design | 4 SH |
| ARTG 4552 | Interactive Information Design | 4 SH |
| ARTG 4553 | Environmental Design | 4 SH |

## INTERACTIVE MEDIA REQUIREMENTS

## Interactive Media Courses

Complete the following seven courses:

| IM 1110 | Interactive Media and Society | 4 SH |
| :--- | :--- | :--- |
| IM 2100 | Digital Narrative 1 | 4 SH |
| IM 2250 | Programming for Digital Media | 4 SH |
| IM 2300 | Managing Media Development | 4 SH |
| IM 2400 | Web Design and Development | 4 SH |
| with IM 2401 | Web Development Tools | 1 SH |
| IM 4700 | Interactive Media Capstone 1 | 4 SH |
| IM 4701 | Interactive Media Capstone 2 | 4 SH |

## GENERAL REQUIREMENTS

## Social Science Level 1

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## Mathematics

Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games 4 SH

## Computer Science

Complete the following course:
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 4$ SH
with CS 2501 Lab for CS $2500 \quad 1$ SH

## Ethics and Culture

Complete one of the following courses. This course should be taken only after the student has completed 56 semester hours:

| COMM 1220 | Media, Culture, and Society | 4 SH |
| :--- | :--- | :--- |
| PHIL 1145 | Technology and Human Values | 4 SH |
| SOCL 4528 | Computers and Society | 4 SH |

## CREATIVE INDUSTRIES ELECTIVES

Complete three courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

| Interactive Media |  |  |
| :---: | :---: | :---: |
| IM 2200 | Digital Narrative 2 | 4 SH |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 3500 | Cross-Media Marketing and Communication | 4 SH |
| IM 3600 | Market Analysis for the Creative Industries | 4 SH |
| IM 3700 | Interface and Virtual Environments | 4 SH |
| IM 4992 | Directed Study | 4 SH |
| IM 4993 | Independent Study | 4 SH |
| Digital Art |  |  |
| ARTD 2360 | Photo Basics | 4 SH |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |
| Computer Science |  |  |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| CS 3200 | Database Design | 4 SH |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4100 | Artificial Intelligence | 4 SH |
| CS 4300 | Computer Graphics | 4 SH |
| CS 4400 | Programming Languages | 4 SH |
| CS 4550 | Web Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |
| IS 4300 | Human Computer Interaction | 4 SH |
| Psychology |  |  |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## REQUIRED GENERAL ELECTIVES

Complete two general electives. If the NU Core comparative studies of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

140 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Digital Art

See page 263.

## Minor in Art + Design

Restricted to students with majors outside the Department of Art + Design.

ART + DESIGN REQUIRED COURSES
Complete the following four courses with corresponding tools courses, as indicated:

| ARTF 1120 | Drawing 1 Foundation | 4 SH |
| :--- | :--- | :--- |
| ARTF 1122 | 2D Foundation | 4 SH |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |

## ART + DESIGN ELECTIVE

Complete one of the following courses with corresponding tools course, as indicated. Note: There is no tools course for
ARTS 2340:
ARTG $2250 \quad$ Typography 1 SH
with ARTG 2251 Type Tools 1 SH
ARTS $2340 \quad$ Painting Basics 4 SH
ARTD $2360 \quad$ Photo Basics 4 SH
with ARTD 2361 Photo Tools 1 SH
ARTD $2370 \quad$ Animation Basics 4 SH
with ARTD 2371 Animation Tools 1 SH
ARTD $2380 \quad$ Video Basics 4 SH
with ARTD 2381 Video Tools 1 SH
GPA REQUIREMENT
3.000 GPA required in the minor

## Minor in Art History

REQUIREMENTS FOR NON-ART + DESIGN MAJORS
Students with majors outside the Department of Art + Design should complete the following requirements:

## Art History Electives

Complete five courses from the following list. Note: Architectural history courses may also be used upon approval of the chair of the Art + Design department:
ARTE 2501 Art + Design Abroad: History 4 SH
ARTH $1110 \quad$ Art + Design History before $1400 \quad 4$ SH
ARTH $1111 \quad$ Art + Design History since 1400 SH
ARTH $2210 \quad$ Art + Design History, 1900 to 19454 SH
ARTH 2211 Art + Design History, 1945 to Present 4 SH
ARTH 2212 Survey of the Still and Moving Image 4 SH
ARTH 2213 Nineteenth-Century Art 4 SH
ARTH 2214 American Art 4 SH
ARTH $3410 \quad$ Art of the African Diaspora 4 SH
REQUIREMENTS FOR ART + DESIGN MAJORS
Students with majors in the Department of Art + Design should complete the following requirements:

## Art History Electives

Augment the art history courses within your major by completing four electives from the following list. Note: Architectural history, cinema studies, or creative industries courses may also be used upon approval by the chair of the Art + Design department.

| ARTE 2501 | Art + Design Abroad: History | 4 SH |
| :--- | :--- | :--- |
| ARTH 2211 | Art + Design History, 1945 to Present | 4 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |
| ARTH 2213 | Nineteenth-Century Art | 4 SH |
| ARTH 2214 | American Art | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |

## GPA REQUIREMENT

3.000 GPA required in the minor

## Minor in Digital Art

Restricted to graphic design majors.

## REQUIRED COURSE

Complete the following course:
ARTH 2212 Survey of the Still and Moving Image 4 SH
DIGITAL ART REQUIREMENTS
Complete 16 semester hours of electives from the following lists, including at least one basic elective with corresponding tools course:

## Basic Electives

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |

## Digital Art Electives

| ARTD 3460 | Photography 1 | 4 SH |
| :--- | :--- | :--- |
| ARTD 3470 | Animation Studio 1 | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| ARTD 4560 | Photography 2 | 4 SH |
| ARTD 4570 | Animation Studio 2 | 4 SH |
| ARTD 4580 | Video 2 | 4 SH |
| ARTD 4660 | Studio Photography | 4 SH |
| ARTD 4661 | Alternative Photographic Processes | 4 SH |
| ARTD 4670 | Digital Art Degree Project | 4 SH |
| ARTD 4680 | Video 3 | 4 SH |

## GPA REQUIREMENT

3.000 GPA required in the minor

## Minor in Graphic Design

Restricted to art majors and digital art majors.

## REQUIRED COURSES

Complete the following three courses with corresponding tools course, as indicated:

| ARTG 2250 | Typography 1 | 4 SH |
| :--- | :--- | :--- |
| with ARTG 2251 | Type Tools | 1 SH |
| ARTG 2252 | Graphic Design 1 | 4 SH |
| ARTH 2211 | Art + Design History, 1945 to Present | 4 SH |

## GRAPHIC DESIGN ELECTIVES

Complete two courses from the following list:

| ARTG 3350 | Typography 2 | 4 SH |
| :--- | :--- | :--- |
| ARTG 3351 | Time-Based Design | 4 SH |
| ARTG 3352 | Interactive Design | 4 SH |

## GPA REQUIREMENT

3.000 GPA required in the minor

## ASIAN STUDIES

www.interdisciplinary.neu.edu

Christina Gilmartin, PhD
Associate Professor, History, and Director of Asian Studies

Office: 207 Meserve Hall
Phone: 617.373.4449
Fax: 617.373.2661
E-mail contact: Christina Gilmartin, Associate Professor and Director, c.gilmartin@neu.edu

Asian studies at Northeastern is an interdisciplinary program that provides students with a broad introduction to the history, politics, cultures, and societies of Asia, particularly China and Japan, in a global context. Our major is designed to promote an understanding of national, regional, and local cultures of the fastest-developing continent in the world and the ways that its various cultures interact with one another and the rest of the
world. Our courses are offered in the departments of English, history, modern languages, music, philosophy, religion, political science, and sociology and anthropology. Students majoring in Asian studies are strongly encouraged to accelerate their language acquisition process and gain firsthand experiences in Asia through participation in an academic study-abroad program, international co-op experience, or an experiential educational program.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BA in Asian Studies

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Minor in East Asian Studies

## CORE COURSE

Complete the following course:
ASNS 1150 East Asian Studies
4 SH

## ELECTIVE COURSES

Complete four courses from the following list. They may include up to two courses taken as part of an approved study-abroad program:

| ASNS 2245 | Asian-American History | 4 SH |
| :--- | :--- | :--- |
| CHNS 1101 | Elementary Chinese 1 | 4 SH |
| CHNS 1102 | Elementary Chinese 2 | 4 SH |
| CHNS 2101 | Intermediate Chinese 1 | 4 SH |
| CHNS 2301 | Intermediate Chinese Immersion 1 | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1500 | Backgrounds of Chinese Culture | 4 SH |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 SH |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| ENGL 3672 | Asian-American Literature | 4 SH |
| HIST 1243 | American Images of China | 4 SH |
| HIST 1250 | Emergence of East Asia | 4 SH |
| HIST 1251 | Modern East Asia | 4 SH |
| HIST 1252 | Japanese Literature and Culture | 4 SH |
| HIST 1253 | History of Vietnam Wars | 4 SH |
| HIST 1254 | Contemporary China | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and | 4 SH |
|  | $\quad$ China |  |
| HIST 2350 | Modern China | 4 SH |
| HIST 2351 | Japan since 1850 | 4 SH |
| HIST 2352 | Contemporary Japan and Korea | 4 SH |
| HIST 4650 | Topics in Asian History | 4 SH |


| HIST 4942 | East Asian Cultural History Abroad | 4 SH |
| :---: | :---: | :---: |
| JPNS 1101 | Elementary Japanese 1 | 4 SH |
| JPNS 1102 | Elementary Japanese 2 | 4 SH |
| JPNS 2101 | Intermediate Japanese 1 | 4 SH |
| MUSC 1130 | Music of Asia | 4 SH |
| POLS 3480 | Government and Politics in Japan | 4 SH |
| POLS 3485 | Government and Politics in China | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |
| RELS 1290 | Chinese Philosophy and Religion | 4 SH |
| The following courses may also be used with prior approval: |  |  |
| INTL 4938 | Dialogue of Civilizations: <br> Globalization and Social Sciences | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |

GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in East Asian Studies—Language Track

## CORE COURSE

Complete the following course:
ASNS $1150 \quad$ East Asian Studies 4 SH

## REQUIRED COURSES

Complete the following two courses in either Chinese or Japanese:

## Chinese

CHNS $1101 \quad$ Elementary Chinese $1 \quad 4$ SH
CHNS 1102 Elementary Chinese 2 SH

Japanese

| JPNS 1101 | Elementary Japanese 1 | 4 SH |
| :--- | :--- | :--- |
| JPNS 1102 | Elementary Japanese 2 | 4 SH |

## ELECTIVE COURSES

Complete two courses from the following list. They may include up to two courses taken as part of an approved study-abroad program:
ASNS 2245 Asian-American History 4 SH
CHNS 2101 Intermediate Chinese 14 SH
CHNS 2301 Intermediate Chinese Immersion $1 \quad 4$ SH
CLTR 1260 Japanese Film 4 SH
CLTR $1500 \quad$ Backgrounds of Chinese Culture 4 SH
CLTR 1700 Introduction to Japanese Pop Culture 4 SH
CLTR $2501 \quad$ Chinese Film: Gender and Ethnicity 4 SH
ENGL 3672 Asian-American Literature 4 SH
HIST 1243 American Images of China 4 SH
HIST $1250 \quad 4$ SH
HIST $1251 \quad$ Modern East Asia 4 SH
HIST 1252 Japanese Literature and Culture 4 SH
HIST $1253 \quad$ History of Vietnam Wars 4 SH
HIST $1254 \quad$ Contemporary China 4 SH
HIST $1507 \quad$ Chinese Civilization in Her Eyes 4 SH
HIST $2313 \quad$ Gender and Revolution in Russia and 4 SH

HIST $2350 \quad$ Modern China 4 SH

| HIST 2351 | Japan since 1850 | 4 SH |
| :--- | :--- | :--- |
| HIST 2352 | Contemporary Japan and Korea | 4 SH |
| HIST 4650 | Topics in Asian History | 4 SH |
| HIST 4942 | East Asian Cultural History Abroad | 4 SH |
| JPNS 2101 | Intermediate Japanese 1 | 4 SH |
| MUSC 1130 | Music of Asia | 4 SH |
| POLS 3480 | Government and Politics in Japan | 4 SH |
| POLS 3485 | Government and Politics in China | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |
| RELS 1290 | Chinese Philosophy and Religion | 4 SH |

The following courses may also be used with prior approval:
INTL 4938
Dialogue of Civilizations:
Globalization and Social Sciences
INTL 4939
Dialogue of Civilizations:
Globalization, Humanities, and
Cultural Studies

## GPA REQUIREMENT

2.000 GPA required in the minor

BEHAVIORAL NEUROSCIENCE

Donald M. O'Malley, PhD
Associate Professor, Biology, and Program Director

Office: 134 Mugar Hall
Phone: 617.373.2284
E-mail contact: Donald M. O’Malley, Associate Professor and
Program Director, d.omalley@neu.edu

The behavioral neuroscience major is an interdepartmental program for undergraduates, with a program director and advisory board made up of the neuroscience faculty of the College of Arts and Sciences. The field of neuroscience focuses on brain mechanisms and how they give rise to behavioral functions in humans and animals. Behavioral neuroscience combines the disciplines of biology and psychology with a strong background in basic physical sciences and mathematics. The goal is to achieve an understanding of anatomy and physiology of nerve cells, chemical transmission, simple neural circuits, and fundamental biological processes such as inheritance and development, and then to see how these biological events give rise to normal and pathological behavior. The primary objective of the neuroscience major is to draw together faculty and students who are interested in this interdisciplinary topic and to provide undergraduates with an education in the field. This major also seeks to prepare students for advancement to graduate programs in the field of neuroscience or to biology or psychology programs with an emphasis in neurobiology. An additional objective of this major is to prepare its students for admission to medical school, although there are
additional science courses that should be taken as electives. Finally, the goal of the curriculum is to prepare students for employment in clinical settings or in allied fields such as the biotech industry.

Note: Due to overlap in course content, double majoring in behavioral neuroscience and psychology or behavioral neuroscience and biology is not permitted.

## Transferring to the Major

Students must have a minimum cumulative GPA of 2.000 and completion of any three of the following five courses:

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :--- | :--- | ---: |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| CHEM 1211 | General Chemistry 1 | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |
| PSYC 1101 | Foundations of Psychology | 4 SH |
| with a minimum GPA of 2.000 for these courses. Acceptance into |  |  |
| the major is based on students' meeting the above criteria and |  |  |
| availability of space in the program. |  |  |

## Academic Progression Standards

Same as college standards.

## BS in Behavioral Neuroscience

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BEHAVIORAL NEUROSCIENCE MAJOR REQUIREMENTS

Survey Courses—Level 1: Introductory
PSYCHOLOGY
Complete the following course:
PSYC 1101 Foundations of Psychology 4 SH
MATHEMATICS
Complete the following two courses:
MATH 1241 Calculus 1 SH
or MATH 1251 Calculus and Differential Equations 4 SH

MATH 1242 Calculus 2 SH
or MATH 1252 Calculus and Differential Equations 4 SH

## SCIENCE

Complete the following four courses with corresponding labs:
BIOLOGY 1

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :---: | :---: | :---: |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOLOGY 2 |  |  |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| CHEMISTRY 1 |  |  |
| CHEM 1211 | General Chemistry 1 | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEMISTRY 2 |  |  |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |

## Survey Courses—Level 2: Intermediate

## PSYCHOLOGY

Complete the following two courses:

| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| :--- | :--- | :--- |
| PSYC 3458 | Psychobiology | 4 SH |
| or BIOL 3405 | Neurobiology | 4 SH |

SCIENCE
Complete the following three courses with corresponding labs:
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL 23011 SH
CHEM 2311 Organic Chemistry 1
with CHEM 2312 Lab for CHEM 2311
CHEM 2313 Organic Chemistry 2
with CHEM 2314 Lab for CHEM 2313

## Advanced Courses—Psychology

ADVANCED PSYCHOLOGY ELECTIVES (AREA A)
Complete one course from the following list:

| PSYC 2358 | Behavior Therapies | 4 SH |
| :--- | :--- | :--- |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3402 | Social Psychology | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |
| PSYC 3406 | Abnormal Psychology | 4 SH |
| PSYC 3514 | Clinical Neuroscience | 4 SH |

ADVANCED PSYCHOLOGY ELECTIVES (AREA B)
Complete one course from the following list:

| PSYC 3450 | Learning and Motivation | 4 SH |
| :--- | :--- | :--- |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |
| PSYC 3510 | Psychopharmacology | 4 SH |
| PSYC 3512 | Neuropsychology | 4 SH |
| PSYC 4520 | Language and the Brain | 4 SH |

## Advanced Courses-Biology

ADVANCED BIOLOGY ELECTIVES (AREA A)
Complete one course with corresponding lab from the following list:

| BIOL 2319 | Regulatory Cell Biology | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2320 | Lab for BIOL 2319 | 1 SH |
| BIOL 3407 | Molecular Cell Biology | 4 SH |
| BIOL 5551 | Principles of Animal Physiology | 4 SH |
| with BIOL 5552 | Lab for BIOL 5551 | 1 SH |

ADVANCED BIOLOGY ELECTIVES (AREA B)
Complete one course with corresponding lab from the following list:
BIOL 3403 Animal Behavior 4 SH
BIOL 5545 Neuroethology 4 SH
with BIOL 5546 Lab for BIOL 55451 SH
BIOL 5587 Comparative Neurobiology 4 SH
ADVANCED BIOLOGY ELECTIVES (AREA C)
Complete one course with corresponding lab from the following list:

| BIOL 2311 | Ecology | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2312 | Lab for BIOL 2311 | 1 SH |
| BIOL 2315 | Invertebrate Zoology | 4 SH |
| with BIOL 2316 | Lab for BIOL 2315 | 1 SH |
| BIOL 2317 | Vertebrate Zoology | 4 SH |
| with BIOL 2318 | Lab for BIOL 2317 | 1 SH |
| BIOL 2323 | Biochemistry | 4 SH |
| with BIOL 2324 | Lab for BIOL 2323 | 1 SH |
| BIOL 3401 | Comparative Vertebrate Anatomy | 4 SH |
| with BIOL 3402 | Lab for BIOL 3401 | 1 SH |
| BIOL 5503 | Marine Invertebrate Zoology | 4 SH |
| with BIOL 5504 | Lab for BIOL 5503 | 1 SH |
| BIOL 5541 | Endocrinology | 4 SH |
| BIOL 5543 | Embryonic Stem Cells | 4 SH |
| BIOL 5547 | Sociobiology | 4 SH |
| BIOL 5549 | Microbial Biotechnology | 4 SH |
| BIOL 5565 | Mammalogy | 4 SH |
| with BIOL 5566 | Lab for BIOL 5565 | 1 SH |
| BIOL 5573 | Medical Microbiology | 4 SH |
| with BIOL 5574 | Lab for BIOL 5573 | 1 SH |
| BIOL 5577 | Developmental Biology | 4 SH |
| with BIOL 5578 | Lab for BIOL 5577 | 1 SH |
| BIOL 5581 | Biological Imaging | 4 SH |
| BIOL 5583 | Immunology | 4 SH |
| BIOL 5585 | Evolution | 5 SH |
| with BIOL 5586 | Lab for BIOL 5585 | 1 SH |
| Note: The following courses require permission prior to |  |  |
| registration: |  | 4 SH |
| PT 5131 | Gross Anatomy | 1 SH |
| with PT 5132 | Lab for PT 5131 | 4 SH |
| PT 5138 | Neuroscience |  |

## Specialty Courses

SEMINAR
Complete one seminar from the following list:
BIOL $3409 \quad$ Current Topics in Biology
4 SH
BIOL 7383
Topics in Biochemistry Cell and Molecular Biology
BIOL 7384
Topics in Integrative Biology
PSYC 4650
Seminar in Clinical Case Study
PSYC 4652
PSYC 4654
Seminar in Ethics in Psychology
PSYC 4656
Seminar in Behavioral Modification
4 SH

PSYC 4658
Seminar in Psychobiology
4 SH
4 SH
PSYC 4660
Seminar in Psycholinguistics
4 SH
PSYC 4666
PSYC 4668
PSYC 4670
PSYC 4672
Seminar in Cognition
4 SH
4 SH
4 SH
4 SH

LABORATORY COURSE
Complete one laboratory course from the following list:
BIOL $4970 \quad$ Junior/Senior Honors Project 1 SH
BIOL 4971 Junior/Senior Honors Project 2 SH
BIOL $4992 \quad$ Directed Study 4 SH

BIOL $5579 \quad$ Biochemistry/Molecular Biology 5 SH
Experimental Approaches
PSYC $4602 \quad$ Experiments in Learning and 4 SH
PSYC 4604 Laboratory in Learning and 4 SH
PSYC 4606 Laboratory in Psychobiology 4 SH
PSYC 4608 Laboratory in Animal Behavior 4 SH Research
PSYC 4610 Laboratory in Psycholinguistics
PSYC 4612
PSYC 4622 Laboratory in Sensation and Perception
PSYC $4970 \quad$ Junior/Senior Honors Project $1 \quad 4$ SH
with PSYC 4971 Junior/Senior Honors Project 24 SH
PSYC 4992 Directed Study 4 SH

## BEHAVIORAL NEUROSCIENCE EXPERIENTIAL EDUCATION REQUIREMENT

Complete one of the following three options:
Option 1: Practical and Reflective Experience
Complete a practical experience and a reflective experience:

## PRACTICAL EXPERIENCE

Complete one research co-op, research internship, researchoriented directed study, or study abroad.

## REFLECTIVE EXPERIENCE

Complete one of the following capstones, seminars, or directed studies:
BIOL 4701
Biology Capstone
4 SH
BIOL 4996
Experiential Education Directed Study
PSYC 4650
Seminar in Clinical Case Study
4 SH
4 SH

| PSYC 4652 | Seminar in Ethics in Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 4656 | Seminar in Psychobiology | 4 SH |
| PSYC 4993 | Independent Study | 4 SH |
| PSYC 4996 | Experiential Education Directed Study | 4 SH |

Option 2: Honors Project
Complete two semesters of a biology or psychology honors project:
BIOL $4970 \quad$ Junior/Senior Honors Project $1 \quad 4$ SH
with BIOL 4971 Junior/Senior Honors Project 24 SH

PSYC $4970 \quad$ Junior/Senior Honors Project $1 \quad 4$ SH
with PSYC 4971 Junior/Senior Honors Project 2 SH

## Option 3: Directed Study

Complete two semesters of directed study with a final oral presentation or written report. Both semesters must be in the same lab:

| BIOL 4992 | Directed Study | 4 SH |
| :--- | :--- | :--- |
| PSYC 4992 | Directed Study | 4 SH |

## BEHAVIORAL NEUROSCIENCE MAJOR CREDIT REQUIREMENT <br> Complete 83 semester hours in the major. <br> Due to overlap in course content, double majoring in behavioral neuroscience and psychology or behavioral neuroscience and biology is not permitted. Also, there is no minor offered in behavioral neuroscience.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

BIOCHEMISTRY

Kostia Bergman, PhD
Associate Professor and Chair
of the Biochemistry Steering Committee

Advising Web site: www.biology.neu.edu/bioadvising.html

BBiochemistry includes nearly the entire spectrum of sciencefrom physics and chemistry to biology and medicine. The biochemistry major, sponsored jointly by the Departments of Biology and Chemistry and Chemical Biology, provides a strong foundation in mathematics and the physical sciences as well as thorough training in biochemistry, biology, and chemistry. In addition to formal class work, opportunities are available for participation in faculty research programs on an individual basis or through the Honors Program. The large number of biotechnology
companies and biomedical facilities in the Boston area provides a rich source of opportunities through Northeastern's program of cooperative education. Two combined BS/MS programs are also available: BS in biochemistry/MS in biotechnology and BS in biochemistry/MS in chemistry.

A Bachelor of Science degree in biochemistry allows students to enter the job market directly or go on to graduate, medical, veterinary, dental, law, or business school. Students may find positions in biotechnology companies, pharmaceutical companies, or government agencies, working in laboratory or clinical research, quality control, production, information systems, marketing, or technical sales. Students may also pursue graduate study in biochemistry, molecular biology, cell biology, biophysics, genetics, toxicology, biotechnology, clinical chemistry, animal science, nutrition, plant science, or other biomedical sciences.

Students who are interested in attending medical, dental, or veterinary school following graduation are urged to consult with the preprofessional advisory committee early in their careers at Northeastern.

## Transferring to the Major

Upperclass students transferring to biochemistry must have a minimum GPA of 2.000 and have completed a year in chemistry and a year in calculus, preferably the following courses: MATH 1251 Calculus and Differential Equations for 4 SH Biology 1
MATH 1252 Calculus and Differential Equations for 4 SH Biology 2
with a grade of C or better.
Transferring into biochemistry requires the approval of the Biochemistry Coordinating Committee Chair. Acceptance into the major is based on students' meeting the criteria for admission and availability of space in the program.

## Academic Progression Standards

After four semesters in the major, students must have a GPA of at least 2.000 in all science and math courses and have completed at least six of the following courses:
BIOL $1101 \quad$ Principles of Biology 1 SH
with BIOL 1102 Lab for BIOL $1101 \quad 1 \mathrm{SH}$
and BIOL 1103 Principles of Biology 24 SH
with BIOL 1104 Lab for BIOL 11031 SH
BIOL $2301 \quad$ Genetics and Molecular Biology
4 SH
with BIOL 2302 Lab for BIOL $2301 \quad 1 \mathrm{SH}$
CHEM 1211 General Chemistry 14 SH
with CHEM 1212 Lab for CHEM $1211 \quad 1$ SH
and CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
CHEM 2311 Organic Chemistry 14 SH
with CHEM 2312 Lab for CHEM 23111 SH
and CHEM 2313 Organic Chemistry 24 SH
with CHEM 2314 Lab for CHEM 23131 SH

## MATH 1251 <br> Calculus and Differential Equations <br> 4 SH for Biology 1 <br> and MATH 1252 Calculus and Differential Equations <br> 4 SH

 for Biology 2Students who transfer into the biochemistry major will be allowed two semesters after entering the major to meet the minimum standards for their class. Students who fail to meet the above standards will be placed on departmental probation. Two consecutive semesters on departmental probation will result in dismissal from the major.

To graduate with a major in biochemistry, a student must have a cumulative GPA of 2.000 for all science and mathematics courses required for the major.

No double majors are offered in biochemistry and biology or in biochemistry and behavioral neuroscience due to similarity in course curricula. Students must maintain a minimum grade-point average of 2.000 to remain in this program.

## BS in Biochemistry

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BIOCHEMISTRY BREADTH COURSES

## Mathematics Courses

Complete the following two courses:
MATH $1251 \quad$ Calculus and Differential Equations 4 SH for Biology 1
Calculus and Differential Equations 4 SH
for Biology 2

## Physics Courses

Complete a lecture/lab set for Physics 1 and for Physics 2:
PHYSICS 1
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1151 \quad$ Physics for Engineering 1 SH
with PHYS 1152 Lab for PHYS $1151 \quad 1$ SH
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
PHYSICS 2
PHYS $1147 \quad$ Physics for Life Sciences 24 SH
with PHYS 1148 Lab for PHYS $1147 \quad 1$ SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS $1155 \quad 1$ SH
PHYS 1165 Physics $2 \quad 4$ SH
with PHYS 1166 Lab for PHYS $1165 \quad 1$ SH

## BIOCHEMISTRY MAJOR REQUIREMENTS

## Principles of Biology

Complete the following two courses with corresponding labs:
BIOLOGY 1
BIOL $1101 \quad$ Principles of Biology $1 \quad 4 \mathrm{SH}$
with BIOL 1102 Lab for BIOL $1101 \quad 1$ SH

| or BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOLOGY 2 |  |  |
| BIOL 1103 Principles of Biology 2 |  |  |
| with BIOL 1104 | Lab for BIOL 1103 | 4 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |

## Molecular Biology

Complete the following two courses with corresponding lab, as indicated:
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL 23011 SH
BIOL 3407 Molecular Cell Biology 4 SH

## Chemistry Courses

Complete the following six courses with corresponding labs:
CHEM 1211 General Chemistry 14 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
CHEM 2311 Organic Chemistry 14 SH
with CHEM 2312 Lab for CHEM 23111 SH
CHEM 2313 Organic Chemistry 2 SH
with CHEM 2314 Lab for CHEM 23131 SH
CHEM 2321 Analytical Chemistry 4 SH
with CHEM 2322 Lab for CHEM 23211 SH
CHEM $3401 \quad$ Physical Chemistry 1 SH
with CHEM 3402 Lab for CHEM 34011 SH

## Biochemistry Course

Complete the following course with corresponding lab:
BIOL 2323 Biochemistry
4 SH
with BIOL 2324 Lab for BIOL 23231 SH
Experiential Education Introduction
Complete the following course:
BIOL 1106 Introduction to Experiential Education 1 SH

## Experiential Education

An activity related to biochemistry and approved by the experiential education advisor must be completed before the capstone. Among the possibilities are co-op experience, junior/senior honors thesis, research project in a faculty lab, study abroad with submission of a paper, 120 hours of supervised volunteer work in a biochemistry-related area, completion of the following course:
CHEM $4750 \quad$ Senior Research 4 SH or other approved experiences.

## Capstone

Complete the following course:
$\begin{array}{ll}\text { BIOL 4701 } & \text { Biology Capstone } \\ \text { or CHEM 4770 } & \text { Chemistry Capstone }\end{array}$
4 SH
4 SH

## BIOLOGY AND CHEMISTRY ADVANCED ELECTIVES <br> Complete four advanced courses for a total of at least 17 semester hours from biology and chemistry with a minimum of one from each department. At least one course must be an approved lab course from the list "Approved Labs" below. Up to 4 semester hours may be research in a biology or chemistry faculty lab.

## Biology

BIOL 2311 to BIOL 5999

## Chemistry

CHEM 2310 to CHEM 5999
Approved Labs

| BIOL 5579 | Biochemistry/Molecular Biology <br> Experimental Approaches | 5 SH |
| :--- | :--- | :--- |
| CHEM 2332 | Lab for CHEM 2331 | 1 SH |
| with CHEM 2331 | Bioanalytical Chemistry | 4 SH |
| CHEM 3522 | Instrumental Methods of Analysis Lab | 4 SH |
| with CHEM 3521 | Instrumental Methods of Analysis | 1 SH |
| CHEM 3532 | Chemical Synthesis Characterization | 4 SH |
|  | Lab |  |
| with CHEM 3531 | Chemical Synthesis Characterization | 1 SH |
| Faculty Labs |  |  |
| BIOL 4970 | Junior/Senior Honors Project 1 | 4 SH |
| BIOL 4991 | Research | 4 SH |
| CHEM 4750 | Senior Research | 4 SH |
| CHEM 4901 | Undergraduate Research | 4 SH |
| CHEM 4970 | Junior/Senior Honors Project 1 | 4 SH |

## BIOCHEMISTRY MAJOR CREDIT/GPA REQUIREMENTS

Complete 94 semester hours in the major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in biochemistry and biology or biochemistry and behavioral neuroscience is not permitted.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required
Minimum 2.000 GPA required

## BS in BiochemistrylMS in Biotechnology

## APPLICATION PROCEDURES

Students should apply for the BS/MS program during their fifth academic semester. Before applying, students must have completed 80 semester hours and one co-op experience.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

BIOCHEMISTRY BREADTH COURSES
Mathematics Courses
Complete the following two courses:

| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 |
| :--- | :--- |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 |

## Physics Courses

Complete a lecture/lab set for Physics 1 and Physics 2:
PHYSICS 1
PHYS $1145 \quad$ Physics for Life Sciences 1 SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1151 \quad 4$ SH
with PHYS 1152 Lab for PHYS $1151 \quad 1$ SH
PHYS $1161 \quad$ Physics 1 SH
with PHYS 1162 Lab for PHYS 11611 SH
PHYSICS 2
PHYS 1147 Physics for Life Sciences 24 SH
with PHYS 1148 Lab for PHYS 1147
PHYS $1155 \quad$ Physics for Engineering 2
with PHYS 1156 Lab for PHYS 1155
PHYS $1165 \quad$ Physics 2
with PHYS 1166 Lab for PHYS 1165

## BIOCHEMISTRY MAJOR REQUIREMENTS

Principles of Biology
Complete the following two courses with corresponding labs:
BIOLOGY 1
BIOL $1101 \quad$ Principles of Biology 1 SH
with BIOL 1102 Lab for BIOL $1101 \quad 1 \mathrm{SH}$
or BIOL 1111 General Biology 1
with BIOL 1112 Lab for BIOL 1111
BIOLOGY 2
BIOL 1103 Principles of Biology 2
4 SH
with BIOL 1104 Lab for BIOL 1103
or BIOL 1113 General Biology 2
with BIOL 1114 Lab for BIOL 1113

## Molecular Biology

Complete the following course with corresponding lab:
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL 23011 SH

## Chemistry Courses

Complete the following six courses with corresponding labs:
CHEM $1211 \quad$ General Chemistry 1 SH
with CHEM 1212 Lab for CHEM $1211 \quad 1 \mathrm{SH}$
CHEM 1214 General Chemistry 2 SH
with CHEM 1215 Lab for CHEM 1214
CHEM $2311 \quad$ Organic Chemistry 1
with CHEM 2312 Lab for CHEM 2311
CHEM $2313 \quad$ Organic Chemistry 2
with CHEM 2314 Lab for CHEM 2313
CHEM 2321 Analytical Chemistry
with CHEM 2322 Lab for CHEM 2321

| CHEM 3401 | Physical Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 3402 | Lab for CHEM 3401 | 1 SH |
| Biochemistry Courses   <br> Complete the following course with corresponding lab:   <br> BIOL 2323 Biochemistry 4 SH <br> with BIOL 2324 Lab for BIOL 2323 1 SH <br> Experiential Education Introduction  $\$ l$ |  |  |

Complete the following course:
BIOL 1106 Introduction to Experiential Education 1 SH

## Experiential Education

Two undergraduate co-op experiences are required, preferably in the biotechnology industry.

| Approved Lab |  |  |
| :---: | :---: | :---: |
| Complete one of the following courses with corresponding lab, as indicated: |  |  |
| BIOL 5579 | Biochemistry/Molecular Biology Experimental Approaches | 5 SH |
| CHEM 2331 | Bioanalytical Chemistry | 4 SH |
| with CHEM 2332 | Lab for CHEM 2331 | 1 SH |
| CHEM 3521 | Instrumental Methods of Analysis | 1 SH |
| with CHEM 3522 | Instrumental Methods of Analysis Lab | 4 SH |
| CHEM 3531 | Chemical Synthesis Characterization | 1 SH |
| with CHEM 3532 | Chemical Synthesis Characterization Lab | 4 SH |
| Capstone |  |  |
| Complete the following course: |  |  |
| BIOL 4701 | Biology Capstone | 4 SH |
| or CHEM 4770 | Chemistry Capstone | 4 SH |

## BIOTECHNOLOGY REQUIREMENTS-GRADUATE

 COURSES TAKEN AS AN UNDERGRADUATERequired Courses
Complete the following four courses for graduate credit:

| BIOL 6301 | Molecular Cell Biology | 4 SH |
| :--- | :--- | :--- |
| IDSC 5120 | Introduction to Biotechnology | 2 SH |
| IDSC 7245 | Biotechnology Applications <br> Laboratory | 2 SH |
| PHSC 5100 | Concepts in Pharmaceutical Science | 2 SH |

## Elective Course Work

Complete one additional graduate-level biology or chemistry elective course.

## BIOTECHNOLOGY REQUIREMENTS—GRADUATE COURSES TAKEN AS A GRADUATE STUDENT

## Track

Complete either the molecular track or the pharmaceutical track:
MOLECULAR TRACK
Complete the following five courses:

| BIOL 7382 | Research Problem Solving | 2 SH |
| :--- | :--- | :--- |
| CHEM 5611 | Analytical Separations | 3 SH |
| CHEM 5612 | Principles of Mass Spectrometry | 3 SH |
| CHEM 5660 | Analytical Biochemistry | 3 SH |
| MGMT 6219 | The Business of Biotechnology | 3 SH |

## PHARMACEUTICAL TRACK

Complete the following seven courses:

| MGMT 6219 | The Business of Biotechnology <br> Drug Design, Evaluation, and <br> Development | 3 SH |
| :--- | :--- | :--- |
|  | 2 SH |  |
| PHSC 6214 | Experimental Design and Biometrics | 2 SH |
| PHSC 6216 | Human Physiology and <br> Pathophysiology | 2 SH |
| PHSC 6218 | Biomedical Chemical Analysis <br> PMST 6252 | Pharmacokinetics and Drug <br> Metabolism |
| PMST 6254 | Advanced Drug Delivery System | 3 SH |
|  | SH |  |

## Elective Course Work

Complete 2 semester hours of graduate electives chosen in consultation with your advisor.

## Graduate-Level Co-op

Complete one graduate-level co-op assignment, preferably in the biotechnology industry.

## UNDERGRADUATE BIOCHEMISTRY MAJOR CREDIT/GPA REQUIREMENTS

Complete 94 semester hours for the undergraduate major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in biochemistry and biology or biochemistry and behavioral neuroscience is not permitted.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required in the undergraduate program Minimum 2.000 GPA required in undergraduate courses Minimum 3.000 GPA required in graduate courses

## BS in Biochemistry/MS in Chemistry

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## BIOLOGY

## www.biology.neu.edu

Frederick C. Davis, PhD

Professor and Interim Chair

Office: 134 Mugar Life Sciences Building
Phone: 617.373.2260
Fax: 617.373.3724
Advising Web site: www.biology.neu.edu/bioadvising.html
$\mathrm{B}_{\mathrm{y} \text { majoring in biology, students are exposed to the organization }}$ and the processes of life, from molecules and cells through organs and organ systems to populations, species, ecosystems, and evolution. The major offers the mathematical, chemical, and physical background necessary for understanding biology and the practical scientific skills associated with each of these areas. It allows students to begin to specialize in a subdiscipline of biology such as animal physiology, cell biology, ecology, marine biology, microbiology, molecular biology, plant biology, zoology, and so forth. Numerous opportunities for relevant positions are available through Northeastern's program of cooperative education.

There are several interdisciplinary opportunities involving biology: BS in biochemistry; BS in behavioral neuroscience; BS in computer science and biology; BS in biology and geology; BS in biology and environmental geology; BS in biology/MS in biotechnology; and BS in biochemistry/MS in biotechnology. A marine biology concentration, designed to provide biology majors with a strong foundation in marine biology and related disciplines, is offered through the Northeastern University Marine Science Center in Nahant.

The undergraduate biology major seeks to prepare students for careers in the life sciences, including medical, dental, and other health-related fields. Students may find employment in federal, state, industrial, hospital, or university laboratories or in industries involved in the manufacture and distribution of pharmaceuticals, biological products, food, or scientific equipment. Biologists also work in fisheries, forestry services, county and state agencies, museums, aquariums, research vessels, and marine stations. Graduate study culminating in a master's or doctoral degree can lead to careers in upper-level teaching or research in any of the life sciences.

Premedical, predental, and other preprofessional students are urged to consult with the preprofessional advisory committee early in their careers at Northeastern.

The biology department strongly encourages undergraduate research by providing opportunities and support through a number of departmental programs, including research co-ops and internships, course credit for research in faculty labs, honors theses, and work-study research positions. Undergraduates are encouraged to present their findings at Northeastern's annual Scholarship and Technology Expo, as well as at external research conferences and in scholarly journals.

## Transferring to the Major

Students transferring to biology must have a minimum cumulative GPA of 2.000 and have completed the following course:
MATH 1120 Precalculus
4 SH
or one semester of calculus with a grade of C or better.
Acceptance into the major is based on students' meeting the
department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

After four semesters in the major, students must have a GPA of at least 2.000 in all science and math courses and have completed at least six of the following courses:

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| and BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| BIOL 2301 | Genetics and Molecular Biology | 4 SH |
| with BIOL 2302 | Lab for BIOL 2301 | 1 SH |
| CHEM 1211 | General Chemistry 1 | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| and CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |
| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| and CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |
| MATH 1251 | Calculus and Differential Equations | 4 SH |
|  | for Biology 1 |  |
| and MATH 1252 | Calculus and Differential Equations | 4 SH |
|  | for Biology 2 |  |

Students who transfer into the biology major will be allowed two semesters after entering the major to meet the minimum standards for their class. Students who fail to meet the above standards will be placed on departmental probation. Two consecutive semesters on departmental probation will result in dismissal from the major.

To graduate with a major in biology, a student must have a cumulative GPA of 2.000 for all science and mathematics courses required for the major. No double majors are offered in biology and biochemistry or in biology and behavioral neuroscience due to similarity in course curricula.

## BS in Biology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR BIOLOGY

## Mathematics

Complete the following two courses:

| MATH 1251 | Calculus and Differential Equations |
| :---: | :---: |
| for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations |
|  | for Biology 2 |

## Chemistry

Complete the following four courses with corresponding labs:
CHEM $1211 \quad$ General Chemistry 14 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
CHEM 2311 Organic Chemistry 14 SH
with CHEM 2312 Lab for CHEM 23111 SH
CHEM 2313 Organic Chemistry 2 SH
with CHEM 2314 Lab for CHEM 23131 SH

## Physics

Complete a lecture/lab set for Physics 1 and Physics 2
(PHYS 1145 and PHYS 1147 are recommended):
PHYSICS 1
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1151 \quad$ Physics for Engineering 1 SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
PHYSICS 2
PHYS $1147 \quad$ Physics for Life Sciences 24 SH
with PHYS 1148 Lab for PHYS $1147 \quad 1$ SH
PHYS $1155 \quad$ Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS $1155 \quad 1$ SH
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS $1165 \quad 1 \mathrm{SH}$

## Intermediate or Advanced Science

Complete one intermediate or advanced science course from the following list:
BIOL 2311 to BIOL 5999
CHEM 2321 Analytical Chemistry 4 SH
CHEM 2341 to CHEM 5999
ENVR 2000 to ENVR 4989
MATH 2280 to MATH 4989
PHYS 2303 to PHYS 5999
PSYC 3458 Psychobiology 4 SH
PSYC $3510 \quad$ Psychopharmacology 4 SH
PSYC 4608 Laboratory in Animal Behavior 4 SH

## BIOLOGY MAJOR REQUIREMENTS

## Required Biology

Complete the following three courses with corresponding labs:
BIOLOGY 1

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |

BIOLOGY 2
BIOL $1103 \quad$ Principles of Biology 2 SH
with BIOL 1104 Lab for BIOL 11031 SH
or BIOL 1113 General Biology 24 SH
with BIOL 1114 Lab for BIOL 11131 SH
GENETICS
BIOL $2301 \quad$ Genetics and Molecular Biology
with BIOL 2302 Lab for BIOL 2301
4 SH
1 SH

## Experiential Education Introduction

Complete the following course:
BIOL 1106 Introduction to Experiential Education 1 SH

## BIOLOGY MAJOR ELECTIVES

Cellular and Molecular Biology
Complete one course with corresponding lab from the following list:

| BIOL 2319 | Regulatory Cell Biology | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2320 | Lab for BIOL 2319 | 1 SH |
| or BIOL 2321 | Microbiology | 4 SH |
| with BIOL 2322 | Lab for BIOL 2321 | 1 SH |
| or BIOL 2323 | Biochemistry | 4 SH |
| with BIOL 2324 | Lab for BIOL 2323 | 1 SH |

Organismal and Population Biology
Complete one course with corresponding lab from the following list:
BIOL 2311 Ecology 4 SH
with BIOL 2312 Lab for BIOL 23111 SH
BIOL 2313 Plant Biology 4 SH
with BIOL 2314 Lab for BIOL 23131 SH
BIOL 2315 Invertebrate Zoology 4 SH
with BIOL 2316 Lab for BIOL 23151 SH
BIOL 2317 Vertebrate Zoology 4 SH
with BIOL 2318 Lab for BIOL 23171 SH

## Intermediate and Advanced Biology

Complete three biology courses (at least 13 semester hours) at level 2311 or above from the following list. The expectation is that one of the courses will have a 1-SH corresponding lab.
BIOL 2311 to BIOL 5999

## Experiential Education

An activity related to biology and approved by the experiential education advisor must be completed before the capstone. Among the possibilities are co-op experience, junior/senior honors thesis, research project in a faculty lab, study abroad with submission of a paper, 120 hours of supervised volunteer work in a biology-related area, participation in the Three Seas Program with submission of a project paper, or other approved experiences.

## Biology Capstone

Complete the following course:
BIOL 4701 Biology Capstone
4 SH

## BIOLOGY MAJOR CREDIT/GPA REQUIREMENTS

Complete 85 semester hours in the major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in biology and biochemistry or biology and behavioral neuroscience is not permitted.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required
Minimum 2.000 GPA required

## BS in Biology with Concentration in Marine Biology <br> NU CORE REQUIREMENTS <br> See page 26 for requirement list. <br> BREADTH COURSES FOR BIOLOGY (MARINE BIOLOGY CONCENTRATION)

## Mathematics

Complete the following two courses:

| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| :--- | :--- | :--- |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |

## Chemistry

Complete the following four courses with corresponding labs:

| CHEM 1211 | General Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |
| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |

## Physics

Complete a lecture/lab set for Physics 1 and for Physics 2
(PHYS 1145 and PHYS 1147 are recommended):
PHYSICS 1

| PHYS 1145 | Physics for Life Sciences 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1146 | Lab for PHYS 1145 | 1 SH |
| PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYS 1161 | Physics 1 | 4 SH |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |

PHYSICS 2
PHYS $1147 \quad$ Physics for Life Sciences $2 \quad 4$ SH
with PHYS 1148 Lab for PHYS 11471 SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH
PHYS 1165 Physics $2 \quad 4$ SH
with PHYS 1166 Lab for PHYS 11651 SH

## BIOLOGY MAJOR REQUIREMENTS (MARINE BIOLOGY CONCENTRATION)

Required Biology
Complete the following three courses with corresponding labs:

| BIOL 1101 | Principles of Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| BIOL 2301 | Genetics and Molecular Biology | 4 SH |
| with BIOL 2302 | Lab for BIOL 2301 | 1 SH |

## Experiential Education Introduction

Complete the following course:
BIOL 1106 Introduction to Experiential Education 1 SH
Cellular and Molecular Biology
Complete one course with corresponding lab from the following list:
BIOL $2319 \quad$ Regulatory Cell Biology 4 SH
with BIOL 2320 Lab for BIOL 23191 SH
or BIOL 2321 Microbiology 4 SH
with BIOL 2322 Lab for BIOL $2321 \quad 1 \mathrm{SH}$
or BIOL 2323 Biochemistry 4 SH
with BIOL 2324 Lab for BIOL 23231 SH
Organismal and Population Biology
Complete the following course with corresponding lab:
BIOL 2311 Ecology 4 SH
with BIOL 2312 Lab for BIOL 23111 SH

## Marine Biology Courses

Complete four marine biology electives within the course range below for a minimum of 16 semester hours:
BIOL 5501 to BIOL 5531
Marine Biology Research
Complete 4 semester hours of directed study/research:
BIOL 4991 Research
4 SH

## Experiential Education

An activity related to biology and approved by the experiential education advisor must be completed before the capstone. Among the possibilities are co-op experience, junior/senior honors thesis, research project in a faculty lab, study abroad with submission of a paper, 120 hours of supervised volunteer work in a biology-related area, participation in the Three Seas Program with submission of a project paper, or other approved experiences.

## Biology Capstone

Complete the following course:
BIOL 4701 Biology Capstone
4 SH

## BIOLOGY MAJOR CREDIT/GPA REQUIREMENTS (MARINE BIOLOGY CONCENTRATION) <br> Complete 85 semester hours in the major with a cumulative GPA of 2.000 . <br> GENERAL ELECTIVES <br> Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required
Minimum 2.000 GPA required

## BS in Biology and Environmental Geology

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Biology and Geology

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Biology and Mathematics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BIOLOGY MAJOR REQUIREMENTS

## Required Biology

Complete the following three courses with corresponding labs:

| BIOLOGY 1 |  |  |
| :--- | :--- | :--- |
| BIOL 1101 | Principles of Biology 1 | 4 SH |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOLOGY 2 |  |  |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |

GENETICS AND MOLECULAR BIOLOGY
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL 2301
1 SH

## Chemistry Courses

Complete the following four courses with corresponding labs:

| CHEM 1211 | General Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |
| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |

## Cellular and Molecular Biology

Complete one course with corresponding lab from the following list:
BIOL $2319 \quad$ Regulatory Cell Biology 4 SH
with BIOL 2320 Lab for BIOL 23191 SH
BIOL 2321 Microbiology 4 SH
with BIOL 2322 Lab for BIOL $2321 \quad 1 \mathrm{SH}$
BIOL 2323 Biochemistry 4 SH
with BIOL 2324 Lab for BIOL 23231 SH
Organismal and Population Biology
Complete one course with corresponding lab from the following

## list:

| BIOL 2311 | Ecology | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2312 | Lab for BIOL 2311 | 1 SH |
| BIOL 2313 | Plant Biology | 4 SH |
| with BIOL 2314 | Lab for BIOL 2313 | 1 SH |
| BIOL 2315 | Invertebrate Zoology | 4 SH |
| with BIOL 2316 | Lab for BIOL 2315 | 1 SH |
| BIOL 2317 | Vertebrate Zoology | 4 SH |
| with BIOL 2318 | Lab for BIOL 2317 | 1 SH |

## MATHEMATICS MAJOR REQUIREMENTS

## Programming Skills

Complete the following course:
MATH $2250 \quad$ Programming Skills for Mathematics
Calculus 1
Complete one of the following courses:
MATH $1251 \quad$ Calculus and Differential Equations for Biology 1
MATH $1341 \quad$ Calculus 1 for Science and 4 SH

## Calculus 2 and Calculus 3

Complete the following two courses:

| MATH 1342 | Calculus 2 for Science and |
| :--- | :--- |
|  | Engineering |
| or MATH 1251 | Calculus and Differential Equations |
| for Biology 1 |  |
| MATH 2321 | Calculus 3 for Science and |
|  | Engineering |

4 SH
1 SH
4 SH
1 SH
4 SH
1 SH

1 SH
2 SH
4 SH
4 SH
4 SH
4 SH
4 SH

## Physics

| Complete the following course with corresponding lab: |  |  |
| :--- | :--- | :--- |
| PHYS 1161 | Physics 1 | 4 SH |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |

Required Mathematics Courses
Complete the following three courses:
MATH 1365 Introduction to Mathematical 4 SH
MATH $2351 \quad$ Ordinary Differential Equations 4 SH
MATH $3081 \quad$ Probability and Statistics 4 SH

## Mathematics Electives

Complete three mathematics courses from the following list:
MATH 2331 Linear Algebra 4 SH

MATH 3000 to MATH 4899

## ADDITIONAL REQUIREMENTS

Biology/Mathematics Integrative Courses
Complete two integrative courses with corresponding labs, as indicated, from the following list:

| BIOL 3405 | Neurobiology | 4 SH |
| :--- | :--- | :--- |
| BIOL 5551 | Principles of Animal Physiology | 4 SH |
| with BIOL 5552 | Lab for BIOL 5551 | 1 SH |
| BIOL 5581 | Biological Imaging | 4 SH |
| BIOL 6308 | Bio IT Methods 1—Genome and | 4 SH |
| $\quad$ Proteome Analysis |  |  |
| BIOL 6309 | Bio IT Methods 2—Protein Structure | 4 SH |
|  | $\quad$ and Systems |  |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| MATH 4581 | Statistics and Stochastic Processes | 4 SH |
| MATH 7343 | Applied Statistics | 4 SH |

Experiential Education Introduction

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| BIOL 1106 | Introduction to Experiential Education | 1 SH |
| MATH 3000 | Co-op and Experiential Learning <br> Reflection Seminar 1 | 1 SH |
| or MATH 4000 | Co-op and Experiential Learning <br> Reflection Seminar 2 | 1 SH |
|  |  |  |


| BIOL 2323 | Biochemistry | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2324 | Lab for BIOL 2323 | 1 SH |
| BIOL 2325 | Marine Biology | 4 SH |
| with BIOL 2326 | Lab for BIOL 2325 | 1 SH |
| MATH 3150 | Real Analysis | 4 SH |

## Advanced Writing in the Disciplines

Complete one of the following courses:
ENGL $3301 \quad$ Advanced Writing in the Disciplines 4 SH
ENGL 3307 Advanced Writing in the Sciences 4 SH

## Capstone

Complete one of the following capstone courses:
BIOL $4701 \quad$ Biology Capstone 4 SH
MATH 4025 Applied Mathematics Capstone 4 SH

## BIOLOGY AND MATHEMATICS DUAL-MAJOR CREDIT/GPA REQUIREMENTS <br> Complete 93 semester hours in the major with a cumulative GPA of 2.000 .

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

143 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Biology

See page 260.

## BS in Biology/MS in Biotechnology

## APPLICATION PROCEDURES

Students should apply for the BS/MS program during their fifth academic semester. Before applying, students must have completed 80 semester hours and one co-op experience.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR BIOLOGY

## Mathematics

Complete the following two courses:
MATH $1251 \quad$ Calculus and Differential Equations 4 SH
MATH $1252 \quad$ Calculus and Differential Equations 4 SH for Biology 2

## Chemistry

Complete the following four courses with corresponding labs:

| CHEM 1211 | General Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH |


| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| :---: | :---: | :---: |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |
| Physics |  |  |
| Complete a lecture/lab set for Physics 1 and Physics 2 (PHYS 1145 and PHYS 1147 are recommended): |  |  |
| PHYSICS 1 |  |  |
| PHYS 1145 | Physics for Life Sciences 1 | 4 SH |
| with PHYS 1146 | Lab for PHYS 1145 | 1 SH |
| PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYS 1161 | Physics 1 | 4 SH |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| PHYSICS 2 |  |  |
| PHYS 1147 | Physics for Life Sciences 2 | 4 SH |
| with PHYS 1148 | Lab for PHYS 1147 | 1 SH |
| PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |
| PHYS 1165 | Physics 2 | 4 SH |
| with PHYS 1166 | Lab for PHYS 1165 | 1 SH |

## Intermediate or Advanced Science

Complete one intermediate or advanced science course from the following list:
BIOL 2311 to BIOL 5999
CHEM 2321 Analytical Chemistry 4 SH
CHEM 2341 to CHEM 5999
ENVR 2000 to ENVR 4989
MATH 2280 to MATH 4989
PHYS 2303 to PHYS 5999
PSYC 3458 Psychobiology 4 SH
PSYC $4510 \quad$ Psychopharmacology 4 SH
PSYC 4608 Laboratory in Animal Behavior 4 SH

## BIOLOGY MAJOR REQUIREMENTS

Required Biology
Complete the following three courses with corresponding labs:

| BIOLOGY 1 |  |  |
| :--- | :--- | :--- |
| BIOL 1101 | Principles of Biology 1 | 4 SH |
| with BIOL 1102 | Lab for BIOL 1101 | 1 SH |
| or BIOL 1111 | General Biology 1 | 4 SH |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOLOGY 2 |  |  |
| BIOL 1103 | Principles of Biology 2 | 4 SH |
| with BIOL 1104 | Lab for BIOL 1103 | 1 SH |
| or BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| GENETICS |  |  |
| BIOL 2301 Genetics and Molecular Biology <br> with BIOL 2302 Lab for BIOL 2301 | 4 SH |  |
|  |  | 1 SH |

## Experiential Education Introduction

Complete the following course:
BIOL 1106 Introduction to Experiential Education 1 SH

## BIOLOGY MAJOR ELECTIVES

Cellular and Molecular Biology
Complete the following course with corresponding lab:
BIOL 2323 Biochemistry 4 SH
with BIOL 2324 Lab for BIOL 2323

## Organismal and Population Biology

Complete one course with corresponding lab from the following list:
BIOL 2311 Ecology 4 SH
with BIOL 2312 Lab for BIOL 23111 SH
BIOL 2313 Plant Biology 4 SH
with BIOL 2314 Lab for BIOL 23131 SH
BIOL 2315 Invertebrate Zoology
with BIOL 2316 Lab for BIOL 2315
4 SH
1 SH
BIOL 2317 Vertebrate Zoology 4 SH
with BIOL 2318 Lab for BIOL 2317

## Biology Capstone

Complete the following course:
BIOL $4701 \quad$ Biology Capstone

## BIOTECHNOLOGY REQUIREMENTS-GRADUATE COURSES TAKEN AS AN UNDERGRADUATE

## Required Courses

Complete the following five courses for graduate credit:
BIOL $5579 \quad$ Biochemistry/Molecular Biology 5 SH Experimental Approaches
BIOL 6301 Molecular Cell Biology 4 SH
IDSC $5120 \quad$ Introduction to Biotechnology 2 SH
IDSC 7245 Biotechnology Applications 2 SH

PHSC $5100 \quad$ Concepts in Pharmaceutical Science 2 SH

## Elective Course Work

Complete one additional graduate-level biology elective course.

## BIOTECHNOLOGY REQUIREMENTS—GRADUATE COURSES TAKEN AS A GRADUATE STUDENT

## Track

Complete either the molecular track or the pharmaceutical track:
MOLECULAR TRACK
Complete the following five courses:
BIOL 7382 Research Problem Solving 2 SH

CHEM 5611 Analytical Separations 3 SH
CHEM $5612 \quad$ Principles of Mass Spectrometry 3 SH
CHEM 5660 Analytical Biochemistry 3 SH
MGMT 6219 The Business of Biotechnology 3 SH
PHARMACEUTICAL TRACK
Complete the following seven courses:
MGMT $6219 \quad$ The Business of Biotechnology 3 SH
PHSC 6210 Drug Design, Evaluation, and 2 SH

| PHSC 6214 | Experimental Design and Biometrics | 2 SH |
| :---: | :---: | :---: |
| PHSC 6216 | Human Physiology and Pathophysiology | 2 SH |
| PHSC 6218 | Biomedical Chemical Analysis | 2 SH |
| PMST 6252 | Pharmacokinetics and Drug Metabolism | 3 SH |
| PMST 6254 | Advanced Drug Delivery System | 3 SH |

## Elective Course Work

Complete 2 semester hours of graduate electives chosen in consultation with your advisor.

## Graduate-Level Co-op

Complete one graduate-level co-op assignment, preferably in the biotechnology industry.

## UNDERGRADUATE BIOLOGY MAJOR CREDIT/GPA REQUIREMENTS <br> Complete 85 semester hours in the undergraduate major with a cumulative GPA of 2.000 . <br> GENERAL ELECTIVES <br> Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required in the undergraduate program
Minimum 2.000 GPA required for undergraduate courses
Minimum 3.000 GPA required for graduate courses

## Minor in Biology

This minor is not available for students who major in biology, biochemistry, behavioral neuroscience, or any dual major that involves biology.

## REQUIRED BIOLOGY COURSES

Complete five biology courses for a total of at least 23 semester hours. At least three courses must be intermediate or advanced (BIOL 2301 to BIOL 5999). Three of the five courses must contain a lab corequisite.

## BREADTH COURSE

To provide breadth of knowledge, complete one additional science course with the BIOL, CHEM, ENVR, or PHYS subject code or from the following list:

| PSYC 3458 | Psychobiology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3510 | Psychopharmacology | 4 SH |
| GPA REQUIREMENT |  |  |
| 2.000 GPA required in the minor |  |  |

## Minor in Marine Biology

This minor is not available for students who major in biology or any dual major that involves biology. Biology majors interested in marine biology should consider the concentration in marine biology.

## REQUIRED COURSES

Complete the following two courses with labs:
BIOL $1101 \quad$ Principles of Biology 1 SH
with BIOL 1102 Lab for BIOL 11011 SH
or BIOL 1111 General Biology 14 SH
with BIOL 1112 Lab for BIOL $1111 \quad 1 \mathrm{SH}$
BIOL $1103 \quad$ Principles of Biology 2 SH
with BIOL 1104 Lab for BIOL 11031 SH
or BIOL $1113 \quad$ General Biology 2
4 SH
with BIOL 1114 Lab for BIOL 1113

## ELECTIVE COURSES

Complete three courses from the following list:
BIOL 2315 Invertebrate Zoology 4 SH
with BIOL 2316 Lab for BIOL 23151 SH
BIOL $2325 \quad$ Marine Biology 4 SH
with BIOL 2326 Lab for BIOL 23251 SH
BIOL 5501 Marine Botany 4 SH
with BIOL 5502 Lab for BIOL $5501 \quad 1 \mathrm{SH}$
BIOL $5503 \quad$ Marine Invertebrate Zoology 4 SH
with BIOL 5504 Lab for BIOL 55031 SH
BIOL $5505 \quad$ Biology of Corals 3 SH
BIOL $5507 \quad$ Biology and Ecology of Fishes 3 SH
BIOL $5509 \quad$ Marine Birds and Mammals 2 SH
with BIOL 5510 Lab for BIOL 55091 SH
BIOL 5515 Marine Ecology 4 SH
BIOL 5517 Oceanography 2 SH
with BIOL 5518 Lab for BIOL 55171 SH
BIOL $5519 \quad$ Ocean and Coastal Processes 2 SH
BIOL 5521 Experimental Design Marine Ecology 4 SH
with BIOL 5522 Lab for BIOL $5521 \quad 1$ SH
BIOL $5523 \quad 3$ SH
BIOL $5525 \quad$ Marine Microbial Ecology 2 SH
with BIOL 5526 Lab for BIOL $5525 \quad 1 \mathrm{SH}$
BIOL $5527 \quad 3$ SH
BIOL $5529 \quad$ Physiological and Molecular Marine 3 SH Ecology
BIOL 5589 Diving Research Methods
2 SH

## BREADTH COURSE

To provide breadth of knowledge, complete one additional science course with the BIOL, CHEM, ENVR, or PHYS subject code or from the following list:

| PSYC 3458 | Psychobiology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3510 | Psychopharmacology | 4 SH |

GPA REQUIREMENT
2.000 GPA required in the minor
www.chem.neu.edu/web

Graham B. Jones, PhD, DSc
Professor and Chair

Office: 102 Hurtig Hall
Phone: 617.373.2383/617.373.2822
Fax: 617.373.8795
E-mail contact: Jordan Swift, Assistant Cooperative Education Coordinator, j.swift@neu.edu

The Department of Chemistry and Chemical Biology provides education in basic chemistry and modern chemistry-related disciplines. The department offers an American Chemical Society-certified program leading to a Bachelor of Science in Chemistry, and also offers a Bachelor of Science in Biochemistry jointly with the Department of Biology. The overall objective of the Bachelor of Science in Chemistry major program is to provide the fundamental scientific background and practical training for students as they prepare for chemically related careers or advanced study in fields including the traditional chemical specialties, as well as biochemistry, materials science, forensic science, medicine, education, law, and other endeavors that may draw upon an understanding of the chemical basis of the world around us.

Key general objectives are the development of qualitative and quantitative problem-solving skills and effective communication skills. Specific learning objectives for the chemistry major include to develop conceptual understanding and problem-solving abilities in the fundamental chemical subfields of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry; gain a foundation of physics and mathematics and integrate these areas with chemical principles; perform quantitative measurements; synthesize and characterize compounds; learn proper laboratory practices including safety; develop proficiency with modern instruments and computers for data acquisition and analysis; and learn the relevance of chemistry to biology, pharmacology, medicine, manufactured and natural materials, and the environment.

Most of our chemistry majors participate in the cooperative education program and thereby gain invaluable professional experience to augment their classroom and laboratory work. Not only does that experience add immensely to the overall education received, it also has the potential to provide contacts and references for later employment or graduate school admissions. Chemistry majors also undertake a research project for at least one semester under the supervision of a faculty member. Sufficient electives are available in the program either to take more advanced courses or research within the department, or to add courses in an area of special interest, such as criminal justice in the case of an interest in forensic science. Qualified students may also participate in a five-year combined BS/MS program.

## Transferring to the Major

A GPA of 2.500 is required in all chemistry, physics, and math courses taken. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the program.

## Academic Progression Standards

Students who began as freshman chemistry majors must, after four semesters, have completed 64 semester hours and the following courses with grades of C or better:
CHEM 1217 General Chemistry 1 for Chemical 4 SH Science Majors
with CHEM 1218 Lab for CHEM 12172 SH
CHEM $1220 \quad$ General Chemistry 2 for Chemical 4 SH Science Majors
with CHEM 1221 Lab for CHEM 1220 SH
CHEM 2315 Organic Chemistry 1 SH
with CHEM 2316 Lab for CHEM 23152 SH
CHEM 2317 Organic Chemistry 24 SH
with CHEM 2318 Lab for CHEM 23172 SH
CHEM 2331 Bioanalytical Chemistry 4 SH
with CHEM 2332 Lab for CHEM 23311 SH
Students who transferred into the major must, after two semesters in the major, have completed 64 semester hours and the following courses with grades of C or better:
CHEM 1211 General Chemistry 14 SH
with CHEM 1212 Lab for CHEM $1211 \quad 1$ SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
or equivalent courses.

## BS in Chemistry

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## CHEMISTRY MAJOR TECHNICAL REQUIREMENTS

## Mathematics

Complete the following two courses:

| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| :--- | :--- | :---: |
| or MATH 1341 | Calculus 1 for Science and <br> Engineering | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| or MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
| Biochemistry | Complete the following course with corresponding lab: <br> CHEM 5621Principles of Chemical Biology for <br> Chemists | 3 SH |
| with CHEM 5622 | Lab for CHEM 5621 | 1 SH |

## Physics 1

Complete one of the following courses with corresponding lab:
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
Physics 2
Complete one of the following courses with corresponding lab:
PHYS $1147 \quad$ Physics for Life Sciences 2 SH
with PHYS 1148 Lab for PHYS 11471 SH
PHYS 1165 Physics $2 \quad 4$ SH
with PHYS 1166 Lab for PHYS 11651 SH

## CHEMISTRY MAJOR REQUIREMENTS

## General Chemistry 1

Complete the following course with corresponding lab:
CHEM $1217 \quad$ General Chemistry 1 for Chemical 4 SH Science Majors
with CHEM 1218 Lab for CHEM 12172 SH
General Chemistry 2
Complete the following course with corresponding lab:
CHEM $1220 \quad$ General Chemistry 2 for Chemical 4 SH Science Majors
with CHEM 1221 Lab for CHEM 12202 SH

## Intermediate-Level Chemistry-Organic Chemistry 1 <br> Complete the following course with corresponding lab: <br> CHEM $2315 \quad$ Organic Chemistry 1 for Chemistry 4 SH <br> Majors

with CHEM 2316 Lab for CHEM 2315 SH
Intermediate-Level Chemistry-Organic Chemistry 2
Complete the following course with corresponding lab:
CHEM $2317 \quad$ Organic Chemistry 2 for Chemistry 4 SH
Majors
with CHEM 2318 Lab for CHEM 23172 SH

## Intermediate-Level Chemistry 1

Complete the following two courses with corresponding labs:
BIOANALYTICAL CHEMISTRY
CHEM 2331 Bioanalytical Chemistry 4 SH
with CHEM 2332 Lab for CHEM 23311 SH
PHYSICAL CHEMISTRY
CHEM $3401 \quad$ Physical Chemistry 1 SH
with CHEM 3402 Lab for CHEM 34011 SH

## Intermediate-Level Chemistry 2

Complete one of the following courses with CHEM 3404 as corresponding lab:

| CHEM 3403 | Physical Chemistry 2 | 4 SH |
| :--- | :--- | :--- |
| or CHEM 3421 | Biophysical Chemistry | 4 SH |
| or CHEM 5637 | Foundations of Spectroscopy | 3 SH |
| with CHEM 3404 | Lab for CHEM 3403 | 1 SH |

Advanced-Level Chemistry
Complete the following four courses with corresponding labs:

| CHEM 3501 | Inorganic Chemistry | 4 SH |
| :--- | :--- | :--- |
| or CHEM 5696 | Organometallic Chemistry | 3 SH |
| CHEM 3521 | Instrumental Methods of Analysis | 1 SH |
| with CHEM 3522 | Instrumental Methods of Analysis Lab | 4 SH |
| CHEM 3531 | Chemical Synthesis Characterization | 1 SH |
| with CHEM 3532 | Chemical Synthesis Characterization | 4 SH |
|  | Lab |  |
| CHEM 5628 | Spectroscopy of Organic Compounds | 3 SH |
| with CHEM 4629 | Identification of Organic Compounds | 2 SH |

## Senior Research/Capstone

Complete the following course:
CHEM 4750 Senior Research

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## CHEMISTRY MAJOR CREDIT REQUIREMENT

Complete 85 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required
Minimum 2.000 GPA required

## BS/MS in Chemistry

NU CORE REQUIREMENTS
See page 26 for requirement list.

## CHEMISTRY MAJOR TECHNICAL REQUIREMENTS

## Mathematics

Complete the following two courses:

| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 SH |
| :---: | :---: | :---: |
| or MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1252 | Calculus and Differential Equations for Biology 2 | 4 SH |
| or MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |

## Biochemistry

Complete the following course with corresponding lab:
CHEM $5621 \quad$ Principles of Chemical Biology for Chemists
with CHEM 5622 Lab for CHEM 56211 SH

## Physics 1

Complete one of the following courses with corresponding lab:
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS 1161 Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS 11611 SH

Physics 2
Complete one of the following courses with corresponding lab:
PHYS $1147 \quad$ Physics for Life Sciences 2 SH
with PHYS 1148 Lab for PHYS $1147 \quad 1$ SH
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS $1165 \quad 1$ SH

## CHEMISTRY MAJOR REQUIREMENTS

## General Chemistry 1

Complete the following course with corresponding lab:
CHEM $1217 \quad$ General Chemistry 1 for Chemical 4 SH Science Majors
with CHEM 1218 Lab for CHEM 12172 SH
General Chemistry 2
Complete the following course with corresponding lab:
CHEM $1220 \quad$ General Chemistry 2 for Chemical 4 SH Science Majors
with CHEM 1221 Lab for CHEM 12202 SH
Intermediate-Level Chemistry-Organic Chemistry 1
Complete the following course with corresponding lab:
CHEM $2315 \quad$ Organic Chemistry 1 for Chemistry 4 SH Majors
with CHEM 2316 Lab for CHEM 2315 SH
Intermediate-Level Chemistry-Organic Chemistry 2
Complete the following course with corresponding lab:
CHEM $2317 \quad$ Organic Chemistry 2 for Chemistry 4 SH Majors
with CHEM 2318 Lab for CHEM 23172 SH

## Intermediate-Level Chemistry 1

Complete the following two courses with corresponding labs:

| BIOANALYTICAL CHEMISTRY |  |
| :--- | :--- |
| CHEM $2331 \quad$ Bioanalytical Chemistry | 4 SH |

with CHEM 2332 Lab for CHEM $2331 \quad 1$ SH
PHYSICAL CHEMISTRY
CHEM $3401 \quad$ Physical Chemistry 1 SH
with CHEM 3402 Lab for CHEM 34011 SH

## Intermediate-Level Chemistry 2

Complete the following course with CHEM 3404:
CHEM $3421 \quad$ Biophysical Chemistry 4 SH
CHEM 3404 Lab for CHEM 34031 SH

## Advanced-Level Chemistry

Complete the following four courses with corresponding labs, where indicated:
CHEM $3521 \quad$ Instrumental Methods of Analysis 1 SH
with CHEM 3522 Instrumental Methods of Analysis Lab 4 SH
CHEM $3531 \quad$ Chemical Synthesis Characterization 1 SH

| CHEM 3532 | Chemical Synthesis Characterization <br> Lab | 4 SH |
| :--- | :--- | :---: |
| CHEM 5628 | Spectroscopy of Organic Compounds <br> CHEM 5646 | Synthesis and Reactivity of Inorganic <br> Compounds |
| or CHEM 5696 | Organometallic Chemistry | 3 SH |

## Senior Research/Capstone

Complete the following course:
CHEM 4750 Senior Research

## GRADUATE REQUIREMENTS

## Graduate Seminars

Complete the following (repeatable) course two times: CHEM 8504 Graduate Seminar

## Graduate Electives

Complete six graduate electives from the following range:

## CHEM 5000 to CHEM 9999

## Master's Research and Thesis

Complete 10 semester hours of master's thesis research: CHEM 8984 Research

1 to 4 SH

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## CHEMISTRY BS/MS MAJOR CREDIT REQUIREMENT

Complete 117 semester hours in the major.

## GRADUATE GPA REQUIREMENT

Minimum 3.000 GPA required in all graduate courses

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

160 total semester hours required
Minimum 2.000 GPA required for undergraduate courses
Minimum 3.000 GPA required for graduate courses

## BS in Environmental Geology and Chemistry

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Chemistry

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Minor in Chemistry <br> REQUIRED COURSES

Complete the following six courses with corresponding labs. Engineering students may take CHEM 1151 in place of CHEM 1211 and two other chemistry courses in place of CHEM 1214 and CHEM 3401:
General Chemistry 1
CHEM $1211 \quad$ General Chemistry $1 \quad 4$ SH
with CHEM 1212 Lab for CHEM 12111 SH
General Chemistry 2
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
Organic Chemistry 1
CHEM $2311 \quad$ Organic Chemistry 1 SH
with CHEM 2312 Lab for CHEM 2311 1 SH
Organic Chemistry 2
CHEM 2313 Organic Chemistry 24 SH
with CHEM 2314 Lab for CHEM 23131 SH
Physical Chemistry 1
CHEM $3401 \quad$ Physical Chemistry 1 SH
with CHEM 3402 Lab for CHEM $3401 \quad 1$ SH
Physical Chemistry 2
Note: CHEM 3404 should be taken as corresponding lab with
CHEM 3403, CHEM 3421, or CHEM 5637.
CHEM 3403 Physical Chemistry 2 SH
or CHEM 3421 Biophysical Chemistry 4 SH
or CHEM 5637 Foundations of Spectroscopy 3 SH
with CHEM 3404 Lab for CHEM 34031 SH

## GPA REQUIREMENT

2.000 GPA required in the minor

## CINEMA STUDIES

www.cinemastudies.neu.edu
Inez Hedges, PhD
Professor of French, German, and Cinema Studies
and Director of the Cinema Studies Program

Office: 225 Holmes Hall
Phone: 617.373.3654
Fax: 617.373.4222
E-mail contact: Inez Hedges, Director, i.hedges@neu.edu

The cinema studies curriculum is formulated upon a systematic historical, critical, and practice-oriented approach to the study of cinema. Students in the dual major are exposed to film and video as art, and become aware of the elements that comprise narrative film, such as editing, mise en scène, sound, and cinematography; explore different modes of cinematic narrative, in particular, the differences between Hollywood and art cinema; broaden their
understanding of international cinema and become conscious of the characteristics of distinctive national cinemas, with an in-depth study of at least three different cinemas; and examine the productive interchange between film and the literary text. In many of the cinema studies offerings, students are encouraged to reflect upon the crucial role of film in the art movements of the twentieth century and to make connections between the classroom and practical experience in small-group discussions. A number of screenwriting and production courses offer students the opportunity to make practical applications of their analytical skills.

Students may enroll in the dual major in cinema studies in combination with the following other dual majors: communication studies; English; journalism; languages, literatures, and cultures; philosophy; and theatre.

Cooperative education placements (arranged through the student's other dual-major program) and internships demonstrate to students how the fundamental aspects of the cinema studies dual major-visual literacy, effective communication, collaborative teamwork, critical thinking, and analytical skillsare valuable in a variety of work settings. The cooperative education and/or internship experience assists cinema studies dual majors in assessing their short- and long-term goals in terms of undergraduate educational focus, graduate school preparation, and career aspirations. It challenges students to understand their own values, ethics, and ideas in the context of the professions that they experience while on co-op/internship. Students' placements also serve to expose them to a variety of professional people who may serve as mentors in the present and future. The following types of organizations typically provide cinema studies dual majors with the best opportunities to develop research, writing, and visual communication skills, as well as analytical and critical skills relevant to their major(s): Web site development companies, documentary production companies, advertising agencies, Bostonbased film units of commercial film productions, independent feature productions, WGBH, cable companies, film distributors, art houses, the Museum of Fine Arts film program, and area film festivals.

Students who choose the cinema studies minor are exposed to a range of aesthetic, historical, international, and sociological perspectives from which to approach the film and video medium. They may also learn to integrate these analytical approaches with practical experience in videography and the study of broadcast technology. The diverse course offerings and carefully structured program have enabled our graduates to do well in the everexpanding world of video production, distribution, and marketing, as well as to pursue careers as film scholars and teachers.

## Transferring to the Major

Students apply in the spring of their freshman year by making an appointment with the director of cinema studies.

## Academic Progression Standards

All majors must maintain at least a 2.500 GPA in their overall program of studies and a minimum of 3.000 in the following two required courses:

| CINE 2150 | Film Analysis | 4 SH |
| :--- | :--- | :--- |
| CINE 3500 | Film Theory | 4 SH |

## BA in Cinema Studies and Communication Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Required Courses

Complete the following two courses:

| CINE 2150 | Film Analysis | 4 SH |
| :--- | :--- | :--- |
| CINE 3500 | Film Theory | 4 SH |

## International Cinema

Complete three courses from the following list:
CINE $2340 \quad$ Marxism, Film, and Revolution 4 SH
CINE 2394 Modern Film 4 SH
CINE $2550 \quad$ Australian Film 4 SH

CINE $2650 \quad$ Screening the Holocaust 4 SH
CINE $3450 \quad$ Israeli and Palestinian Film 4 SH
CINE 3460 Jewish Film 4 SH
CINE 3930 Topics in International Cinema 4 SH
CLTR 1240 Latin American Film 4 SH
CLTR 1260 Japanese Film 4 SH
CLTR 1265 Spanish Civil War on Film 4 SH
CLTR $1280 \quad$ French Film and Culture 4 SH
CLTR 1290 Realism and Modernism in Italian 4 SH

CLTR $2501 \quad$ Chinese Film: Gender and Ethnicity 4 SH
CLTR 2504 Modern German Film and Literature 4 SH
CLTR 4508 Cuban History through Film- 4 SH

HIST $2386 \quad 4$ SH
HIST 34214 SH
RELS $3398 \quad$ Religion and Culture in Indian Cinema 4 SH
Integrative Film and Literature
Complete one course from the following list:
CINE $3391 \quad$ Topics in Film 4 SH
CINE $3392 \quad$ Women and Film: The Gendered Gaze 4 SH
CLTR $2280 \quad$ French Film and World War II: The 4 SH

ENGL $3488 \quad$ Film and Text 4 SH
ENGL $3489 \quad$ Shakespeare on Film 4 SH

## Junior/Senior Seminar

Complete one of the following courses:
CINE $4500 \quad$ Modernism/Modernity and Film 4 SH
CINE $4550 \quad$ Cinema Studies Seminar 4 SH

| Experiential Education for Cinema |  |  |
| :---: | :---: | :---: |
| This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required): |  |  |
| CINE 3446 | Topics in Documentary Production | 4 SH |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | SH |
| CINE 4851 | Film Festivals: Exhibition and Distribution | 4 SH |
| CINE 4994 | Cinema Studies Internship 1 | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum 1 | 1 to 4 SH |
| Cinema Studies | ectives |  |
| Complete three specific courses | urses either from cinema studies or from the following list: | m the |
| ARTD 2370 | Animation Basics | 4 SH |
| ARTD 2380 | Video Basics | SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian Film | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | - 4 SH |
| COMMUNICATIONS REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR |  |  |
| Introductory Communications |  |  |
| Complete the following two courses: |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 SH |
| COMM 1220 | Media, Culture, and Society | 4 SH |
| Production |  |  |
| Complete the following three courses: |  |  |
| COMM 2450 | Audio Production | 4 SH |
| COMM 3550 | Television Field Production | 4 SH |
| COMM 3650 | Television Studio Production | 4 SH |
| Communications Elective |  |  |
| Complete five courses from the following list: |  |  |
| COMM 2301 | Methods and Research in Communication | 4 SH |
| COMM 2302 | Advertising and Promotional Culture | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| COMM 2304 | Communication and Gender | 4 SH |
| COMM 2451 | Sports Broadcasting | 4 SH |
| COMM 2454 | Broadcasting Management and Programming | 4 SH |
| COMM 3422 | Media Audiences | 4 SH |


| CLTR 1290 | Realism and Modernism in Italian Film | 4 SH |
| :---: | :---: | :---: |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 3421 | History through Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| Integrative Film and Literature |  |  |
| Complete one course from the following list: |  |  |
| CINE 3391 | Topics in Film | 4 SH |
| CINE 3392 | Women and Film: The Gendered Gaze | 4 SH |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 SH |
| ENGL 3488 | Film and Text | 4 SH |
| ENGL 3489 | Shakespeare on Film | 4 SH |
| Junior/Senior Seminar |  |  |
| Complete one of the following courses: |  |  |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | ---: |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :---: | :---: | :---: |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian Film | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

## ENGLISH REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Literature Background

Complete the following course:
ENGL $2100 \quad$ Backgrounds to English and American 4 SH Literature

## Literature Survey

Complete any three of the following courses:

| ENGL 2220 | Survey of British Literature 1 | 4 SH |
| :--- | :--- | :--- |
| ENGL 2221 | Survey of British Literature 2 | 4 SH |
| ENGL 2223 | Survey of American Literature 1 | 4 SH |
| ENGL 2224 | Survey of American Literature 2 | 4 SH |

## Shakespeare Course

Complete one of the following courses:
ENGL 2300 Introduction to Shakespeare 4 SH
ENGL $3489 \quad$ Shakespeare on Film 4 SH
ENGL $3612 \quad$ Shakespeare's Comedies 4 SH
ENGL $3613 \quad$ Shakespeare's Tragedies 4 SH
ENGL 3614 Topics in Shakespeare 4 SH

## Period Courses

Complete two period courses from a minimum of two century groups:

## ELEVENTH TO FIFTEENTH CENTURY

| ENGL 4605 | Medieval English Literature | 4 SH |
| :--- | :--- | :--- |
| ENGL 4606 | Topics in Medieval Literature | 4 SH |
| SIXTEENTH CENTURY |  |  |
| ENGL 4609 | Topics in Sixteenth-Century British <br> Literature | 4 SH |
| ENGL 4610 | Sixteenth-Century British Literature | 4 SH |
| SEVENTEENTH CENTURY |  |  |
| ENGL 4616 | Topics in Seventeenth-Century British | 4 SH |
|  | Literature |  |

ENGL $4617 \quad$ Seventeenth-Century British 4 SH Literature

EIGHTEENTH CENTURY

| ENGL 4619 | Eighteenth-Century British Literature <br> Topics in Eighteenth-Century British <br> Literature | 4 SH <br> ENGL 4620 |
| :--- | :--- | :--- |
| ENGL 4661 | Early American Literature |  |
| NINETEENTH CENTURY | 4 SH |  |
| ENGL 4519 | American Novels 1 | 4 SH |
| ENGL 4621 | Romantic Poetry | 4 SH |
| ENGL 4622 | Topics in Romantic Literature | 4 SH |
| ENGL 4624 | Victorian Literature | 4 SH |
| ENGL 4625 | Topics in Victorian Literature | 4 SH |
| ENGL 4626 | Nineteenth-Century British Fiction | 4 SH |
| ENGL 4665 | The American Renaissance | 4 SH |
| ENGL 4667 | American Realism | 4 SH |
| TWENTIETH CENTURY |  |  |
| CINE 2394 | Modern Film | 4 SH |
| ENGL 3408 | The Modern Bestseller | 4 SH |
| ENGL 3671 | Multiethnic Literatures of the U.S. | 4 SH |


| ENGL 3672 | Asian-American Literature | 4 SH |
| :--- | :--- | :--- |
| ENGL 3673 | U.S. Latino/Latina Literature | 4 SH |
| ENGL 3674 | American Indian Literature | 4 SH |
| ENGL 4520 | American Novels 2 | 4 SH |
| ENGL 4630 | Major Twentieth-Century British | 4 SH |
|  | $\quad$ Novelists |  |
| ENGL 4631 | Twentieth-Century British Literature | 4 SH |
| ENGL 4668 | Modern American Literature | 4 SH |
| ENGL 4670 | Modern African-American Literature | 4 SH |
| ENGL 4671 | The Modern Short Story | 4 SH |
| ENGL 4672 | The Modern Novel | 4 SH |
| ENGL 4673 | Modern Drama | 4 SH |
| ENGL 4674 | Modern Poetry | 4 SH |
| ENGL 4676 | Contemporary American Literature | 4 SH |
| ENGL 4678 | Contemporary Poetry | 4 SH |
| ENGL 4679 | Contemporary Fiction | 4 SH |
| ENGL 4683 | Postcolonial Literature | 4 SH |

Literary Criticism, Linguistics, or Rhetoric
Complete one course from the following list:

| CRITICISM |  |  |
| :--- | :--- | :--- |
| ENGL 3337 | Literary Theory | 4 SH |
| ENGL 3339 | Topics in Literary Criticism | 4 SH |
| LINGUISTICS |  |  |
| LING 1150 | Introduction to Language and | 4 SH |
|  | Linguistics |  |
| LING 2350 | Linguistic Analysis | 4 SH |
| LING 3450 | Syntax | 4 SH |
| LING 3452 | Semantics | 4 SH |
| LING 3454 | History of English | 4 SH |
| LING 3456 | Language and Gender | 4 SH |
| LING 3458 | Topics in Linguistics | 4 SH |
| RHETORIC |  |  |
| ENGL 1160 | Introduction to Rhetoric | 4 SH |
| ENGL 3322 | Topics in Rhetoric | 4 SH |
| ENGL 3325 | Rhetoric of Law | 4 SH |

## Junior/Senior Seminar

Complete the following course:
ENGL $4710 \quad$ Junior/Senior Seminar 4 SH

## English Elective

Complete one English course except ENGL 1165, ENGL 1166, or ENGL 1167.

CINEMA STUDIES AND ENGLISH DUAL-MAJOR CREDIT REQUIREMENT
Complete 80 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Journalism

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

Required Courses
Complete the following two courses:
CINE $2150 \quad$ Film Analysis
CINE $3500 \quad$ Film Theory 4 SH

International Cinema
Complete three courses from the following list:

| CINE 2340 | Marxism, Film, and Revolution | 4 SH |
| :--- | :--- | :--- |
| CINE 2394 | Modern Film | 4 SH |
| CINE 2550 | Australian Film | 4 SH |
| CINE 2650 | Screening the Holocaust | 4 SH |
| CINE 3450 | Israeli and Palestinian Film | 4 SH |
| CINE 3460 | Jewish Film | 4 SH |
| CINE 3930 | Topics in International Cinema | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| CLTR 4508 | Cuban History through Film- | 4 SH |
|  | International Study |  |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 3421 | History through Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

Integrative Film and Literature
Complete one course from the following list:
CINE 3391 Topics in Film 4 SH
CINE $3392 \quad$ Women and Film: The Gendered Gaze 4 SH
CLTR $2280 \quad$ French Film and World War II: The 4 SH

ENGL $3488 \quad$ Film and Text 4 SH
ENGL 3489 Shakespeare on Film 4 SH

## Junior/Senior Seminar

Complete one of the following courses:
CINE $4500 \quad$ Modernism/Modernity and Film 4 SH
CINE $4550 \quad$ Cinema Studies Seminar 4 SH

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian  <br>  Film <br> CLTR 4508 Cuban History through Film- <br>  <br> International Study <br> JWSS 3460 Jewish Film <br> PSYC 2354 Psychology and Film <br> RELS 3398 <br> Religion and Culture in Indian Cinema  | 4 SH |

## JOURNALISM REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Journalism Foundations

Complete the following three courses:
JRNL 1101 Journalism 1 SH
JRNL $1150 \quad$ Interpreting the Day’s News 4 SH
JRNL 2201 Journalism 2 SH

## Journalism Advanced Writing

Complete the following course:
JRNL 2301 Journalism 3

## Television News

Complete the following two courses:
JRNL 5307 Television News Writing 4 SH
JRNL 5314 Television News Production 14 SH

## Documentary Production

Complete the following course:
JRNL 5309 Documentary Production 4 SH

## Ethics and Issues

Complete the following course:
JRNL 4650 Journalism Ethics and Issues

## Journalism Elective

Complete one course from the School of Journalism.

## CINEMA STUDIES AND JOURNALISM DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 76 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Languages, Literatures, and Cultures

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Required Courses

Complete the following two courses:
CINE $2150 \quad$ Film Analysis 4 SH
CINE $3500 \quad$ Film Theory 4 SH

## International Cinema

Complete three courses from the following list:
CINE $2340 \quad$ Marxism, Film, and Revolution 4 SH
CINE 2394 Modern Film 4 SH
CINE $2550 \quad$ Australian Film 4 SH
CINE $2650 \quad$ Screening the Holocaust 4 SH
CINE $3450 \quad$ Israeli and Palestinian Film 4 SH
CINE 3460 Jewish Film 4 SH
CINE $3930 \quad$ Topics in International Cinema 4 SH
CLTR $1240 \quad$ Latin American Film 4 SH
CLTR 1260 Japanese Film 4 SH
CLTR $1265 \quad$ Spanish Civil War on Film 4 SH
CLTR $1280 \quad$ French Film and Culture 4 SH
CLTR 1290 Realism and Modernism in Italian 4 SH

CLTR $2501 \quad$ Chinese Film: Gender and Ethnicity 4 SH
CLTR $2504 \quad$ Modern German Film and Literature 4 SH

CLTR $4508 \quad$ Cuban History through Film- 4 SH
HIST $2386 \quad$ History of Soviet Cinema 4 SH
HIST $3421 \quad 4$ SH
RELS 3398 Religion and Culture in Indian Cinema 4 SH
4 SH Integrative Film and Literature
Complete one course from the following list:
CINE $3391 \quad$ Topics in Film 4 SH
CINE $3392 \quad$ Women and Film: The Gendered Gaze 4 SH

CLTR 2280

ENGL 3488
ENGL 3489

## Junior/Senior Seminar

Complete one of the following courses:

| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| :--- | :--- | :--- |
| CINE 4550 | Cinema Studies Seminar | 4 SH |

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | ---: |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 4508 | Cuban History through Film- | 4 SH |
|  | $\quad$ International Study |  |
| JWSS 3460 | Jewish Film | 4 SH |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

LANGUAGE REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR
Complete either the French option or the Spanish option.

## French Option

LANGUAGE REQUIREMENTS
Complete the following four courses:
FRNH 2101 Intermediate French 14 SH
FRNH 2102 Intermediate French 24 SH
FRNH 3101 Advanced French 1
FRNH 3102 Advanced French 2

## LITERATURE

Complete one of the following literature courses:

| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| :--- | :--- | :--- |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |

## CINEMA STUDIES AND LANGUAGES, LITERATURES, AND CULTURES DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 80 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Philosophy

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Required Courses

Complete the following two courses:

| CINE 2150 | Film Analysis | 4 SH |
| :--- | :--- | :--- |
| CINE 3500 | Film Theory | 4 SH |

International Cinema
Complete three courses from the following list:

| CINE 2340 | Marxism, Film, and Revolution | 4 SH |
| :--- | :--- | :--- |
| CINE 2394 | Modern Film | 4 SH |
| CINE 2550 | Australian Film | 4 SH |
| CINE 2650 | Screening the Holocaust | 4 SH |
| CINE 3450 | Israeli and Palestinian Film | 4 SH |
| CINE 3460 | Jewish Film | 4 SH |
| CINE 3930 | Topics in International Cinema | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| CLTR 4508 | Cuban History through Film- | 4 SH |
|  | International Study |  |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 3421 | History through Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

## Integrative Film and Literature

$\begin{array}{lll}\text { Complete one course from the following list: } & \\ \text { CINE } 3391 & \text { Topics in Film } & 4 \mathrm{SH} \\ \text { CINE } 3392 & \text { Women and Film: The Gendered Gaze } & 4 \mathrm{SH}\end{array}$

| CLTR 2280 | French Film and World War II: The <br> German Occupation of France | 4 SH |
| :--- | :--- | :--- |
| ENGL 3488 | Film and Text | 4 SH |
| ENGL 3489 | Shakespeare on Film | 4 SH |

## Junior/Senior Seminar

Complete one of the following courses:

| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| :--- | :--- | :--- |
| CINE 4550 | Cinema Studies Seminar | 4 SH |

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | ---: |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :---: | :---: | :---: |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian Film | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| PHILOSOPHY REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR |  |  |
| Required Courses |  |  |
| Complete the following three courses: |  |  |
| PHIL 1115 | Introduction to Logic | 4 SH |
| or PHIL 1215 | Symbolic Logic | 4 SH |
| PHIL 2325 | Ancient Philosophy | 4 SH |
| PHIL 2330 | Modern Philosophy | 4 SH |

## Intermediate/Advanced Electives

Complete one course from the following list:

| PHIL 3435 | Moral Philosophy | 4 SH |
| :--- | :--- | :--- |
| PHIL 4500 | Theory of Knowledge | 4 SH |
| PHIL 4505 | Metaphysics | 4 SH |
| PHIL 4535 | Philosophy of Mind | 4 SH |

## Philosophy Topics Electives

Complete one course from the following list:

| PHIL 4901 | Topics in Philosophy Seminar | 4 SH |
| :--- | :--- | :--- |
| PHIL 4902 | Great Philosophers Seminar | 4 SH |
| RELS 4903 | Seminar in Religion | 4 SH |

## Philosophy Electives

Complete four courses from the philosophy department.

## CINEMA STUDIES AND PHILOSOPHY DUAL-MAJOR

 CREDIT REQUIREMENTComplete 76 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Theatre

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Required Courses

Complete the following two courses:
CINE 2150 Film Analysis
CINE $3500 \quad$ Film Theory
4 SH

International Cinema

| CINE 2340 | Marxism, Film, and Revolution |
| :---: | :---: |
| CINE 2394 | Modern Film |
| CINE 2550 | Australian Film |
| CINE 2650 | Screening the Holocaust |
| CINE 3450 | Israeli and Palestinian Film |
| CINE 3460 | Jewish Film |
| CINE 3930 | Topics in International Cinema |
| CLTR 1240 | Latin American Film |
| CLTR 1260 | Japanese Film |
| CLTR 1265 | Spanish Civil War on Film |
| CLTR 1280 | French Film and Culture |
| CLTR 1290 | Realism and Modernism in Italian Film |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| CLTR 2504 | Modern German Film and Literature |
| CLTR 4508 | Cuban History through FilmInternational Study |


| HIST 2386 | History of Soviet Cinema | 4 SH |
| :--- | :--- | :--- |
| HIST 3421 | History through Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

## Integrative Film and Literature

Complete one course from the following list:
CINE 3391 Topics in Film 4 SH
CINE $3392 \quad$ Women and Film: The Gendered Gaze 4 SH
CLTR $2280 \quad$ French Film and World War II: The 4 SH
German Occupation of France
ENGL $3488 \quad$ Film and Text 4 SH
ENGL $3489 \quad$ Shakespeare on Film 4 SH

## Junior/Senior Seminar

Complete one of the following courses:

| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| :--- | :--- | :--- |
| CINE 4550 | Cinema Studies Seminar | 4 SH |

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study abroad, or by completing any courses from the following list (a total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | ---: |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | $\quad$ Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :---: | :---: | :---: |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | SH |
| CINE 2520 | Television Studio Production | SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian Film | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| THEATRE REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR |  |  |
|  |  |  |
| Theatre Introduction |  |  |
| Complete the following three courses: |  |  |
| THTR 1101 | Art of the Theatre | 4 SH |
| THTR 1120 | Acting 1 | 4 SH |
| THTR 1131 | Technical Theatre 1 | 4 SH |

## History and Theory

Complete the following two courses:

| THTR 2300 | Theatre History | 4 SH |
| :--- | :--- | :--- |
| THTR 3500 | Dramatic Theory/Criticism | 4 SH |
| Onstage |  |  |

## Onstage

Complete the following three courses:
THTR $2325 \quad$ Script Analysis for the Stage 4 SH
THTR 2342 Acting 24 SH
THTR $3550 \quad$ Concepts of Directing 4 SH

## Backstage

Complete the following course:
THTR $1270 \quad$ Theatrical Design 4 SH

## Practicum/Experiential Education

Complete the theatre practicum three times (course is repeatable), and complete the theatre capstone.

PRACTICUM
THTR 4804 Theatre Practicum 1 SH
CAPSTONE
THTR 4701
Rehearsal and Performance
4 SH

## CINEMA STUDIES AND THEATRE DUAL-MAJOR

## CREDIT REQUIREMENT

Complete 83 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Cinema Studies and Theatre

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## CINEMA REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR

## Required Courses

Complete the following two courses:
CINE 2150 Film Analysis 4 SH
CINE $3500 \quad$ Film Theory 4 SH

## International Cinema

Complete three courses from the following list:
CINE 2340 Marxism, Film, and Revolution 4 SH
CINE 2394 Modern Film 4 SH
CINE 2550 Australian Film 4 SH
CINE $2650 \quad$ Screening the Holocaust 4 SH
CINE 3450 Israeli and Palestinian Film 4 SH

| CINE 3460 | Jewish Film | 4 SH |
| :--- | :--- | :--- |
| CINE 3930 | Topics in International Cinema | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| CLTR 4508 | Cuban History through Film- | 4 SH |
|  | $\quad$ International Study |  |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 3421 | History through Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

## Integrative Film and Literature

Complete one course from the following list:

| CINE 3391 | Topics in Film | 4 SH |
| :--- | :--- | :--- |
| CINE 3392 | Women and Film: The Gendered Gaze | 4 SH |
| CLTR 2280 | French Film and World War II: The <br> German Occupation of France | 4 SH |
|  |  |  |

ENGL $3488 \quad$ Film and Text 4 SH
ENGL $3489 \quad$ Shakespeare on Film 4 SH

## Junior/Senior Seminar

Complete one of the following courses:

| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| :--- | :--- | :--- |
| CINE 4550 | Cinema Studies Seminar | 4 SH |

## Experiential Education for Cinema

This requirement is satisfied by the junior/senior seminar, by study
abroad, or by completing any courses from the following list (a
total of 4 semester hours is required):

| CINE 3446 | Topics in Documentary Production | 4 SH |
| :--- | :--- | ---: |
| CINE 4500 | Modernism/Modernity and Film | 4 SH |
| CINE 4550 | Cinema Studies Seminar | 4 SH |
| CINE 4650 | Making the Short Film | 4 SH |
| CINE 4851 | Film Festivals: Exhibition and | 4 SH |
|  | $\quad$ Distribution |  |
| CINE 4994 | Cinema Studies Internship | 1 to 4 SH |
| CINE 4995 | Cinema Studies Practicum | 1 to 4 SH |

## Cinema Studies Electives

Complete three courses either from cinema studies or from the specific courses on the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CINE 2520 | Television Studio Production | 4 SH |
| or COMM 3650 | Television Studio Production | 4 SH |
| CINE 2620 | Television Field Production | 4 SH |
| or COMM 3550 | Television Field Production | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 4508 | Cuban History through Film- | 4 SH |
|  | International Study |  |


| JWSS 3460 | Jewish Film | 4 SH |
| :--- | :--- | :--- |
| PSYC 2354 | Psychology and Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

THEATRE REQUIREMENTS FOR CINEMA STUDIES DUAL MAJOR
A minimum grade of C is required for all theatre courses.

## Theatre Introduction

Complete the following three courses:

| THTR 1101 | Art of the Theatre | 4 SH |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 SH |
| THTR 1131 | Technical Theatre 1 | 4 SH |

## History and Theory

Complete the following two courses:
THTR 2300 Theatre History 4 SH
THTR 3500 Dramatic Theory/Criticism 4 SH

## Onstage

Complete the following three courses:
THTR $2325 \quad$ Script Analysis for the Stage 4 SH
THTR 2342 Acting 24 SH
THTR $3550 \quad$ Concepts of Directing 4 SH

## Backstage

Complete the following course:
THTR $1270 \quad$ Theatrical Design 4 SH

## Practicum/Experiential Education

Complete the theatre practicum three times (course is repeatable), and complete the theatre capstone.

| PRACTICUM |  |  |
| :--- | :--- | :---: |
| THTR 4804 | Theatre Practicum | 1 SH |
| CAPSTONE |  |  |
| THTR 4701 | Rehearsal and Performance | 4 SH |

## CINEMA STUDIES AND THEATRE DUAL-MAJOR CREDIT REQUIREMENT

Complete 83 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## Minor in Cinema Studies

## REQUIRED COURSES

Complete the following two courses:

| CINE 1200 | Exploring the Humanities through | 4 SH |
| :--- | :--- | :--- |
|  | Film |  |
| or CINE 2150 | Film Analysis | 4 SH |
| CINE 3500 | Film Theory | 4 SH |

## ELECTIVE COURSES

Complete three additional cinema studies courses or related courses from the following list:

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| ARTD 2380 | Video Basics | 4 SH |
| ARTD 3480 | Video 1 | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1290 | Realism and Modernism in Italian | 4 SH |
|  | $\quad$ Film |  |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| COMM 3550 | Television Field Production | 4 SH |
| COMM 3650 | Television Studio Production | 4 SH |
| ENGL 3488 | Film and Text | 4 SH |
| HIST 1243 | American Images of China | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 3421 | History through Film | 4 SH |
| IDSC 4699 | Advanced Television Production | 4 SH |
| JRNL 5309 | Documentary Production | 4 SH |
| JRNL 5314 | Television News Production 1 | 4 SH |
| JRNL 5315 | Television News Production 2 | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| MUSC 1113 | Film Music | 4 SH |
| THTR 2345 | Acting for the Camera | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## COMMUNICATION STUDIES

www.commstudies.neu.edu

Thomas K. NaKayama, PhD
Professor and Chair

Office: 101 Lake Hall
Phone: 617.373.5517
Fax: 617.373.8533
E-mail contact: Angela Chin, Administrative Assistant, a.chin@neu.edu

The Department of Communication Studies is dedicated to providing a liberal arts education where critical skills, concepts, and thinking are developed in conjunction with practice and application. Through a study of processes, patterns, and media of communication, the major in communication studies from Northeastern University aims to provide an enriching background for our students, providing them with an opportunity to contribute significantly to the communication sector, whether that contribution is within organizations or in the media industries themselves. Through its students and faculty, communication studies at Northeastern is a program dedicated to critical
innovation. It strives to integrate new research into teaching and pedagogy to ensure students are connected to new developments in the field of communication.

## Transferring to the Major

Students wishing to transfer to the major must have a cumulative GPA of 3.000 overall and must have completed:
COMM $1101 \quad$ Introduction to
Communication Studies
and one of the following courses:
COMM $1112 \quad$ Public Speaking (no prerequisite) 4 SH
COMM $1220 \quad$ Media, Culture, and Society 4 SH

COMM 1231 Principles of Organizational 4 SH
Communication
(prerequisite COMM 1101)
with grades of B or higher. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs. Requests to transfer into the major should be submitted to the communication studies department office by October 1, February 1, or July 1.

## Academic Progression Standards

Departmental probation will result from a cumulative GPA
below 2.750 in communication courses. No more than two grades below a C in communication studies courses can be used to fulfill degree requirements. Dismissal from the major may occur as a result of two consecutive semesters on departmental probation.

## BA in Communication Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## COMMUNICATION STUDIES MAJOR REQUIREMENTS

Introduction to College
Complete the following course:

| COMM 1000 | Communication Studies at <br> Northeastern |
| :--- | :---: |
| Communications | Studies Core Requirements |
| Complete the following four courses: |  |
| COMM 1101 | Introduction to Communication |
|  | Studies |
| COMM 1112 | Public Speaking |
| COMM 1220 | Media, Culture, and Society |
| COMM 1231 | Principles of Organizational |
|  | Communication |

## COMMUNICATION STUDIES CONCENTRATION

Complete the concentration in public advocacy and rhetoric, the concentration in media studies, or the concentration in organizational communication.

## Concentration in Public Advocacy and Rhetoric

## REQUIRED COURSE

Complete one of the following courses:

| COMM 1210 | Persuasion and Rhetoric | 4 SH |
| :--- | :--- | :--- |
| COMM 2310 | Classical Rhetorical Theory | 4 SH |

PUBLIC COMMUNICATION ELECTIVES
Complete four courses from the following list:
COMM $1210 \quad$ Persuasion and Rhetoric 4 SH
or COMM 2310 Classical Rhetorical Theory 4 SH
COMM 2302 Advertising and Promotional Culture 4 SH
COMM $2304 \quad$ Communication and Gender 4 SH
COMM 2331 Legal Argumentation, Advocacy, and 4 SH
COMM $3331 \quad$ Argumentation and Debate 4 SH
COMM 3403 Persuasive Speaking 4 SH
COMM $3410 \quad$ Rhetorical Criticism: Great 4 SH

COMM $3411 \quad$ Rhetorical Criticism: Sound and 4 SH
COMM 3425 Television: Text and Context 4 SH
COMM 3451 Advertising Principles and Practices 4 SH
COMM $3501 \quad$ Free Speech: Law and Practice 4 SH
COMM 4602 Contemporary Rhetorical Theory 4 SH
COMM 4603 Advocacy Workshop 4 SH
COMM $4610 \quad$ Political Communication 4 SH

COMM $4631 \quad$ Crisis Communication and Image 4 SH

COMM $4910 \quad$ Special Topics in Public Advocacy 4 SH

## Concentration in Media Studies

REQUIRED COURSE
Complete the following course:
COMM 4623 Theories of Media and Culture 4 SH

## MEDIA STUDIES ELECTIVES

Complete four courses from the following list:
COMM $2301 \quad$ Methods and Research in 4 SH

COMM 2302 Advertising and Promotional Culture 4 SH
COMM $2303 \quad 4$ SH
COMM $2304 \quad$ Communication and Gender 4 SH
COMM 2323 Television and Society 4 SH
COMM 2325 Global Media 4 SH
COMM 2451 Sports Broadcasting 4 SH

COMM $2454 \quad$ Broadcasting Management and 4 SH
COMM $3422 \quad 4$ SH

COMM 3423 Twentieth-Century Media 4 SH
COMM 3425 Television: Text and Context 4 SH

| COMM 3426 | Popular Music as Media Form | SH |
| :---: | :---: | :---: |
| COMM 3435 | Political Economy of Media and Communication Policy | 4 SH |
| COMM 3436 | Media and Democracy | 4 SH |
| COMM 3437 | Media and Identity | 4 SH |
| COMM 3451 | Advertising Principles and Practices | 4 SH |
| COMM 4622 | New Media Culture | 4 SH |
| Concentration in Organizational Communication |  |  |
| REQUIRED COURSES <br> Complete the following two courses: |  |  |
|  |  |  |
| COMM 2531 | Application of Organizational Communication | 4 SH |
| COMM 4533 | Consultation Skills | 4 SH |
| ORGANIZATIONAL COMMUNICATION ELECTIVES Complete three courses from the following list: |  |  |
|  |  |  |
| COMM 3201 | Health Communication | 4 SH |
| COMM 3230 | Interpersonal Communication | 4 SH |
| COMM 3532 | Theories of Conflict and Negotiation | 4 SH |
| COMM 4530 | Communication and Quality of Life | 4 SH |
| COMM 4630 | Assessment Technique and Planning | 4 SH |
| COMM 4631 | Crisis Communication and Image Management | 4 SH |
| COMMUNICATIONS STUDIES MAJOR ELECTIVES |  |  |
| Complete four courses from any concentration or from the following list: |  |  |
| COMM 4901 | Seminar in Communications | 4 SH |
| COMM 4910 | Special Topics in Public Advocacy and Rhetoric | 4 SH |
| COMM 4914 | Special Topics: Organizational Communication | 4 SH |
| COMM 4916 | Organizational Communication Practicum | 4 SH |
| COMM 4992 | Directed Study | 4 SH |
| COMM 4994 | Internship in Communication | 4 SH |
| COMM 5210 | Special Topics in Media Studies | 3 SH |

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## COMMUNICATIONS STUDIES MAJOR CREDIT REQUIREMENT

Complete 52 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Communication Studies

See page 88 .

## BA in Communication Studies/MA in Communication, Media, and Cultural Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.
COMMUNICATION STUDIES MAJOR REQUIREMENTS

Introduction to College
Complete the following course:

| COMM 1000 | Communication Studies at <br> Northeastern | 1 SH |
| :--- | :--- | :--- |
| Communication Studies Core Requirements  <br> Complete the following four courses:  <br> COMM 1101 Introduction to Communication <br>  Studies <br> COMM 1112 Public Speaking | 4 SH |  |
| COMM 1220 | Media, Culture, and Society <br> COMM 1231 <br> Principles of Organizational <br> Communication | 4 SH |
|  | 4 SH |  |

## COMMUNICATION STUDIES CONCENTRATION

Complete the concentration in public advocacy and rhetoric, the concentration in media studies, or the concentration in organizational communication.

Concentration in Public Advocacy and Rhetoric
REQUIRED COURSE
Complete one of the following courses:
COMM $1210 \quad$ Persuasion and Rhetoric 4 SH

COMM $2310 \quad$ Classical Rhetorical Theory 4 SH
PUBLIC COMMUNICATION ELECTIVES
Complete four courses from the following list:
COMM $1210 \quad$ Persuasion and Rhetoric 4 SH
or COMM 2310 Classical Rhetorical Theory 4 SH
COMM 2302 Advertising and Promotional Culture 4 SH
COMM $2304 \quad$ Communication and Gender 4 SH
COMM 2331 Legal Argumentation, Advocacy, and 4 SH Citizenship
COMM 3306 International Communication Abroad 4 SH
COMM $3331 \quad$ Argumentation and Debate 4 SH
COMM $3403 \quad$ Persuasive Speaking 4 SH
COMM $3410 \quad$ Rhetorical Criticism: Great 4 SH
Americans, 1630-1930
COMM 3411 Rhetorical Criticism: Sound and 4 SH
Image, 1930-Present
COMM 3425 Television: Text and Context 4 SH
COMM 3451 Advertising Principles and Practices 4 SH
COMM $3501 \quad$ Free Speech: Law and Practice 4 SH
COMM 4602 Contemporary Rhetorical Theory 4 SH

| COMM 4603 | Advocacy Workshop | 4 SH |
| :---: | :---: | :---: |
| COMM 4610 | Political Communication | 4 SH |
| COMM 4631 | Crisis Communication and Image Management | 4 SH |
| COMM 4910 | Special Topics in Public Advocacy and Rhetoric | 4 SH |
| Concentration in Media Studies |  |  |
| REQUIRED COURSE |  |  |
| Complete the following course: |  |  |
| COMM 4623 | Theories of Media and Culture | 4 SH |
| MEDIA STUDIES ELECTIVES |  |  |
| Complete four courses from the following list: |  |  |
| COMM 2301 | Methods and Research in Communication | 4 SH |
| COMM 2302 | Advertising and Promotional Culture | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| COMM 2304 | Communication and Gender | 4 SH |
| COMM 2323 | Television and Society | 4 SH |
| COMM 2325 | Global Media | 4 SH |
| COMM 2451 | Sports Broadcasting | 4 SH |
| COMM 2454 | Broadcasting Management and Programming | 4 SH |
| COMM 3422 | Media Audiences | 4 SH |
| COMM 3423 | Twentieth-Century Media | 4 SH |
| COMM 3425 | Television: Text and Context | 4 SH |
| COMM 3426 | Popular Music as Media Form | 4 SH |
| COMM 3435 | Political Economy of Media and Communication Policy | 4 SH |
| COMM 3436 | Media and Democracy | 4 SH |
| COMM 3437 | Media and Identity | 4 SH |
| COMM 3451 | Advertising Principles and Practices | 4 SH |
| COMM 4622 | New Media Culture | 4 SH |
| Concentration in Organizational Communication |  |  |
| REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| COMM 2531 | Application of Organizational Communication | 4 SH |
| COMM 4533 | Consultation Skills | 4 SH |
| ORGANIZATIONAL COMMUNICATION ELECTIVES Complete three courses from the following list: |  |  |
|  |  |  |
| COMM 3201 | Health Communication | 4 SH |
| COMM 3230 | Interpersonal Communication | 4 SH |
| COMM 3532 | Theories of Conflict and Negotiation | 4 SH |
| COMM 4530 | Communication and Quality of Life | 4 SH |
| COMM 4630 | Assessment Technique and Planning | 4 SH |
| COMM 4631 | Crisis Communication and Image <br> Management | 4 SH |

## COMMUNICATION STUDIES MAJOR ELECTIVES

Complete four courses from any concentration or from the following list:

| COMM 4910 | Special Topics in Public Advocacy <br> and Rhetoric | 4 SH |
| :--- | :--- | :---: |
| COMM 4914 | Special Topics: Organizational <br> Communication | 4 SH |
| COMM 4916 | Organizational Communication <br> Practicum | 4 SH |
| COMM 4992 | Directed Study | 4 SH |
| COMM 4994 | Internship in Communication | 4 SH |
| COMM 5210 | Special Topics in Media Studies | 3 SH |

ADVANCED UNDERGRADUATE COURSES
Complete the following course:
COMM $4901 \quad$ Seminar in Communications 4 SH
and complete one additional course from the following list:
COMM $4610 \quad$ Political Communication 4 SH

COMM $4622 \quad$ New Media Culture 4 SH
COMM $4910 \quad$ Special Topics in Public Advocacy 4 SH and Rhetoric
COMM $4992 \quad$ Directed Study 4 SH
COMM $5210 \quad$ Special Topics in Media Studies 3 SH
IDSC $4699 \quad$ Advanced Television Production 4 SH

## GRADUATE COURSES

## Graduate Electives

Complete 12 semester hours of graduate course work in communication studies.

Thesis Option, Production Option, or Additional Course Work
Complete the thesis option, the production option, or an additional 6 semester hours of graduate course work.
THESIS OPTION
Complete the following course:
COMM 7990 Thesis
6 SH
PRODUCTION OPTION
Complete the following course:
COMM 5676 Media Production 6 SH
ADDITIONAL GRADUATE COURSE WORK
Complete an additional 6 semester hours of graduate course work.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## COMMUNICATION STUDIES UNDERGRADUATE MAJOR CREDIT REQUIREMENT

Complete 52 semester hours in the undergraduate major.
COMMUNICATION STUDIES GRADUATE CREDIT/GPA REQUIREMENTS
Complete 18 semester hours of graduate course work with a minimum GPA of 3.000 in all graduate COMM courses.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION <br> If elected

## Minor in Communication Studies

REQUIRED COURSES
Complete the following four courses:

| COMM 1101 | Introduction to Communication <br> Studies |
| :--- | :---: |
| COMM 1112 | Public Speaking |
| COMM 1220 | Media, Culture, and Society |
| COMM 1231 | Principles of Organizational <br> Communication |

## ELECTIVE COURSES

Complete two courses from the following list:
COMM 1231 to COMM 2301
COMM 3230 to COMM 4799
COMM 4910 to COMM 4914

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Media Production

Restricted to communication studies majors.
REQUIRED COURSES
Complete the following three courses:

| COMM 2450 | Audio Production | 4 SH |
| :--- | :--- | :--- |
| COMM 3550 | Television Field Production | 4 SH |
| COMM 3650 | The |  |

## ELECTIVE COURSES

| Complete three courses from the following list: |  |  |
| :--- | :--- | :--- |
| COMM 2451 | Sports Broadcasting <br> COMM 2454 <br>  <br> Broadcasting Management and <br> Programming | 4 SH |
| COMM 3451 | Advertising Principles and Practices | 4 SH |
| COMM 4650 | Digital Editing for TV <br> COMM 4750 <br>  <br> Advanced Digital Editing for TV and <br> Film | 4 SH |
| COMM 4940 | Special Topics in Media Production | 4 SH |

GPA REQUIREMENT
3.000 GPA required in the minor

## Minor in Oratory and Public Speaking

## PUBLIC SPEAKING

Complete the following course:
COMM 1112 Public Speaking 4 SH

## ELECTIVE COURSES



## REQUIRED COURSE

Complete one of the following courses:
COMM $1210 \quad$ Persuasion and Rhetoric 4 SH
COMM $2310 \quad$ Classical Rhetorical Theory 4 SH
ENGL $1160 \quad$ Introduction to Rhetoric 4 SH

## ELECTIVES

Complete four courses from the following list. Note: English majors may reuse only one course from their major in this elective section of the minor. Public advocacy and rhetoric concentrators in the communication studies major may reuse only one course from their concentration in this section:

| COMM 2331 | Legal Argumentation, Advocacy, and <br> Citizenship | 4 SH |
| :--- | :--- | :--- |
| COMM 3331 | Argumentation and Debate <br> Rhetorical Criticism: Great <br> COMM 3410 | 4 SH |
| COMM 3411 | Americans, 1630-1930 <br> Rhetorical Criticism: Sound and <br> Image, 1930-Present | 4 SH |
| COMM 3501 | Free Speech: Law and Practice | 4 SH |
| COMM 4602 | Contemporary Rhetorical Theory | 4 SH |
| COMM 4610 | Political Communication | 4 SH |
| ENGL 3322 | Topics in Rhetoric | 4 SH |
| ENGL 3325 | Rhetoric of Law |  |
| ENGL 3381 | The Writing Process | 4 SH |
| GPA REQUIREMENT | 4 SH |  |
| 2.000 GPA required in the minor |  |  |

CREATIVE INDUSTRIES
www.ci.neu.edu

Terrence Masson, MFA
Senior Academic Specialist and Director

Office: 321 Ryder Hall
Phone: 617.373.7645
Fax: 617.373.8535
E-mail contact: Terrence Masson, Senior Academic Specialist and Director, t.masson@neu.edu

CCreative industries (CI) is a potent mix of computer programming, art, animation, storytelling, information architecture, and logic. Our dual majors in interactive media or game design provide the breadth and resources to offer all aspects of this deeply collaborative field. CI affords artists, composers, and designers new opportunities to experiment and collaborate with a wide variety of partners, such as medical researchers, mathematicians, and historians. Our modern creative economy has made specialized artistic and technical literacy necessary for the modern professional across a wide variety of professions.

The creative industries dual majors offer students in the areas of Art + Design, music, and computer science an opportunity to understand and experience the disparate disciplines that contribute to content creation. These dual majors expose students to the historical significance of changing technology and media, while encouraging students to integrate their creative work with the skills they need in the rapidly growing field of creative and technical production.

Interactive media and game design require intensive team interaction and a broad knowledge base. Our collaborative approach best allows all team members to understand the context in which their contributions are used. Creative industries students have many opportunities to collaborate with their peers and work with students in all interactive media and game design dual majors.

## Transferring to the Dual Majors

Interactive media and game design dual majors require a serious dedication concentrating in one of seven separate programs of study. To be eligible to apply to the creative industries program, students must:

1. Be majors in good standing in one of the home disciplines.
2. Complete at least one semester of course work in the Department of Art + Design, Department of Music, or College of Computer Science with an overall GPA of 3.000 (or permission of the Creative Industries Committee).

Students in the program begin their work in their home department or college and then continue to develop their core discipline while exploring their interdisciplinary course work.

The curriculum comprises three components:

- Basic principles of art and design, music technology, and computer programming
- Extradisciplinary courses to provide a historical, societal, and cultural framework
- Cross-disciplinary courses specific to the program, such as the following:
GAME 1110
Games and Society
4 SH
The student's senior year in the program is devoted to integrating these components in a capstone project. Students work as interdisciplinary teams, drawing on their accumulated knowledge to develop and deliver a single original project.


## Academic Progression Standards

Art + Design and music technology students are required to maintain a 3.000 GPA in their home department and creative industries courses. Computer science students must maintain a minimum 2.670 GPA in all CS courses.

## BS in Interactive Media and Music with Concentration in Music Technology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## MUSIC REQUIREMENTS

## Music Courses

Complete the following eight courses:
MUSC $1000 \quad$ Music at Northeastern 1 SH

MUSC 1250 Instrumentation and Notation 4 SH
MUST $1220 \quad$ Music and Technology 1 SH
MUST 1221 Music and Technology 2 SH
MUST 2315 History of Electronic Music 4 SH
MUST $2320 \quad$ Sound Design 4 SH
MUST $3421 \quad$ Digital Audio Processing 4 SH
MUST 4520 Interactive Real-Time Performance 4 SH

## Music Theory and Historical Traditions

Complete the following seven courses. Music Theory and Musicianship should be taken concurrently, as indicated:
MUSC $1201 \quad$ Music Theory 14 SH
with MUSC 1241 Musicianship $1 \quad 1 \mathrm{SH}$
MUSC 1202 Music Theory 24 SH
with MUSC 1242 Musicianship 21 SH
MUSC 2303 Music Theory 3 SH
with MUSC 2343 Musicianship 3 SH
MUSC 2304 Music Theory 4 SH
with MUSC 2344 Musicianship 4 SH
MUSC $2308 \quad$ Principles of Music Literature 4 SH
MUSC 23124 SH
MUSC $2313 \quad$ Historical Traditions 3: World 4 SH

## Music Composition Lessons

Complete the following (repeatable) course six times:
MUSC 1903 Composition Lessons
1 SH

Music Ensemble
Complete two music ensembles:

| MUSC 1904 | Chorus | 1 SH |
| :--- | :--- | :--- |
| MUSC 1905 | Band | 1 SH |
| MUSC 1906 | Orchestra | 1 SH |
| MUSC 1907 | Wind Ensemble | 1 SH |
| MUSC 1911 | Jazz Ensemble | 1 SH |
| MUSC 1912 | Rock Ensemble | 1 SH |
| MUSC 1913 | Blues/Rock Ensemble | 1 SH |
| MUSC 1914 | Create Your Own Music | 1 SH |
| MUSC 1915 | Chamber Ensembles | 1 SH |
| MUSC 1916 | Electronic Music Ensemble | 1 SH |
| MUSC 1917 | Jazz/Blues Choir | 1 SH |

## INTERACTIVE MEDIA REQUIREMENTS

Interactive Media Courses
Complete the following six courses:
IM $1110 \quad$ Interactive Media and Society 4 SH

IM $2100 \quad$ Digital Narrative $1 \quad 4$ SH
IM $2250 \quad$ Programming for Digital Media 4 SH
IM $2400 \quad$ Web Design and Development 4 SH
with IM $2401 \quad$ Web Development Tools 1 SH
IM $4700 \quad$ Interactive Media Capstone $1 \quad 4$ SH
IM $4701 \quad$ Interactive Media Capstone $2 \quad 4$ SH
Art + Design
Complete the following two courses with corresponding tools courses:

| ARTF 1122 | 2D Foundation | 4 SH |
| :--- | :--- | :--- |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |

## GENERAL REQUIREMENTS

## Social Science Level 1

Complete the following course:
PSYC 1101 Foundations of Psychology
4 SH

## Mathematics

Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games 4 SH

## Ethics and Culture

Complete one of the following courses. This course should be taken only after the student has completed 56 semester hours:
COMM $1220 \quad$ Media, Culture, and Society 4 SH
PHIL $1145 \quad$ Technology and Human Values 4 SH
SOCL $4528 \quad$ Computers and Society 4 SH

## CREATIVE INDUSTRIES ELECTIVES

Complete three courses from the following lists. If the course has prerequisites, the student must take those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

| Art + Design |  |  |
| :--- | :--- | :--- |
| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |

ARTH 2212 Survey of the Still and Moving Image 4 SH

Digital Art-Animation

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 3470 | Animation Studio 1 | 4 SH |

Digital Art—Video
ARTD $2380 \quad$ Video Basics
with ARTD 2381 Video Tools 1 SH
ARTD $3480 \quad$ Video 1 SH

Digital Art—Photography

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 3460 | Photography 1 | 4 SH |


| Graphic Design |  |  |
| :--- | :--- | :--- |
| ARTG 2250 | Typography 1 | 4 SH |

with ARTG 2251 Type Tools 1 SH
ARTG $2252 \quad$ Graphic Design 14 SH
ARTG 3350 Typography 2 SH

Interactive Media

| IM 2200 | Digital Narrative 2 | 4 SH |
| :--- | :--- | :--- |
| IM 2300 | Managing Media Development | 4 SH |
| IM 3250 | Physical Computing | 4 SH |
| IM 3500 | Cross-Media Marketing <br> and Communication | 4 SH |
| IM 3600 | Market Analysis <br>  <br>  <br> for the Creative Industries | 4 SH |
| IM 3700 | Interface and Virtual Environments | 4 SH |
| IM 3899 | Topics in Interactive Media | 4 SH |

## Computer Science

CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS $2501 \quad$ Lab for CS $2500 \quad 1$ SH
CS $2510 \quad$ Fundamentals of Computer Science 24 SH
with CS $2511 \quad$ Lab for CS $2510 \quad 1$ SH
CS $2800 \quad$ Logic and Computation 4 SH
with CS $2801 \quad$ Lab for CS $2800 \quad 1$ SH
CS 3200 Database Design 4 SH
CS $3500 \quad$ Object-Oriented Design 4 SH
Psychology
PSYC $3452 \quad$ Sensation and Perception 4 SH
PSYC $3464 \quad$ Psychology of Language 4 SH
PSYC 3466 Cognition 4 SH

## REQUIRED GENERAL ELECTIVES

Complete two general electives. If the NU Core comparative studies of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

144 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Game Design

See page 266.

## BS in Computer Science and Interactive Media

See page 267.

## BFA in Digital Art and Game Design

See page 63.

## BFA in Digital Art and Interactive Media

See page 64.

## BFA in Graphic Design and Game Design

See page 66.

## BFA in Graphic Design and Interactive Media

See page 67.

## Minor in Creative Industries

Note: "TBD" stands for "to be determined."
CREATIVE INDUSTRIES REQUIREMENT
Complete one of the following courses:

| GAME 1110 | Games and Society | 4 SH |
| :--- | :--- | :--- |
| IM 1110 | Interactive Media and Society | 4 SH |

INTERACTIVE MEDIA AND GAME DESIGN
Complete at least three courses in interactive media or game design from the following lists:

## Interactive Media

| IM 1110 | Interactive Media and Society | 4 SH |
| :--- | :--- | :--- |
| IM 2300 | Managing Media Development | 4 SH |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 3500 | Cross-Media Marketing <br> and Communication <br> Market Analysis <br> for the Creative Industries | 4 SH |
| IM 3600 |  | 4 SH |
|  |  |  |
| Game Design | Games and Society | 4 SH |
| GAME 1110 | Programming for Games | 4 SH |
| GAME 2150 | Game Design Algorithms | 4 SH |
| GAME 3150 | GAME 3250 | Artificial Intelligence for Games |
| GAME | 4 SH |  |

## CREATIVE INDUSTRIES ELECTIVES

Complete two additional courses, either from the above interactive media or game design lists or from the following creative industries electives. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

| Computer Science |  |  |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| CS 3200 | Database Design | 4 SH |
| CS 3500 | Object-Oriented Design | 4 SH |
| Journalism |  |  |
| JRNL 1150 | Interpreting the Day's News | 4 SH |
| JRNL 3525 | Online Journalism | 4 SH |
| JRNL 5340 | Reinventing the News: The | 4 SH |
|  | Journalism of the Web |  |

## Music

Course list TBD.

## Communication Studies

Course list TBD.

## Business

Course list TBD.

## Psychology

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## Ethics and Culture

COMM $1220 \quad$ Media, Culture, and Society 4 SH
PHIL $1145 \quad$ Technology and Human Values 4 SH
SOCL $4528 \quad$ Computers and Society 4 SH
GPA REQUIREMENT
2.000 GPA required in the minor

## EARTH AND ENVIRONMENTAL SCIENCES

www.ees.neu.edu

Malcolm D. Hill, PhD
Associate Professor and Chair

Office: 14 Holmes Hall
Phone: 617.373.3176
Fax: 617.373.4378
E-mail contact: Malcolm D. Hill, Associate Professor and Chair, m.hill@neu.edu

TThe Department of Earth and Environmental Sciences’ programs are designed to help students develop an in-depth understanding of the processes that affect the earth's surface and that have the greatest impacts on society. Graduates of such programs contribute to the solution of environmental problems such as soil or groundwater contamination, flooding, slope stability, shore erosion related to changing land use, or coping with the impact of sea-level rise or changing weather patterns related to global warming. Commonly, environmental professionals are expected to work effectively as part of a multidisciplinary team containing scientists, engineers, and professionals who can evaluate the legal, economic, political, and social ramifications of complex environmental problems. Northeastern's emphasis on experiential, off-campus learning in addition to classroom learning is designed to help our students to become well grounded in their field of study and to work effectively with others to study and address real problems, as part of their undergraduate program.

Our Bachelor of Science in Environmental Science degree is organized for students who seek a comprehensive understanding of the scientific implications of environmental issues and the ways that environmental scientists from a range of disciplines can approach their solution. Every student has an opportunity to develop core knowledge in geology, biology, chemistry, and mathematics early in the program. Students then select one of four concentrations—surficial processes; marine science; wildlife studies; or environmental geology—as a program focus for their upper-level course work. We also provide an Open Option for students whose interests do not fall into one of these four areas. Students who elect this option work with a faculty advisor to identify a group of five mid- to upper-level science courses that are aligned with the student's career interests. (Students who are interested in studying environmental issues from a policy-based perspective should read the description of the environmental studies major on page 118.)

A number of dual-major programs are offered; these can help focus a student's course choices along avenues that faculty feel are particularly appropriate.

Fieldwork is a valued component of training in our programs, and many of our courses use field sites throughout New England to demonstrate environmental processes or problems in their full complexity. In addition to sponsoring local trips, we have taken
students on one longer field excursion each year to Iceland, the Cascade Mountains of Washington, the island of San Salvador in the Bahamas, or the Grand Canyon. Students also have the option to complete undergraduate research experiences with a faculty member. Undergraduate research projects can involve fieldwork and/or lab work completed under the guidance of faculty.

Many of our recent graduates work for environmental or geotechnical firms or continue their studies in graduate school. Students who participate in the co-op program typically work with local engineering or environmental consulting companies or with government agencies. These jobs often involve assessing building sites, evaluating land use, and studying problems concerned with groundwater contamination and remediation.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BS in Environmental Science

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## ENVIRONMENTAL SCIENCE MAJOR REQUIREMENT

## Geology Courses

Complete the following six courses with corresponding labs, as indicated:

| ENVR 1101 | Environmental Science | 4 SH |
| :--- | :--- | :--- |
| ENVR 1200 | Dynamic Earth | 4 SH |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH |
| ENVR 2340 | Earth Landforms and Processes | 4 SH |
| with ENVR 2341 | Lab for ENVR 2340 | 1 SH |
| ENVR 3300 | Geographic Information Systems | 4 SH |
| with ENVR 3301 | Lab for ENVR 3300 | 1 SH |
| ENVR 4500 | Applied Hydrogeology | 4 SH |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH |
| ENVR 5210 | Environmental Planning | 4 SH |
| or ENVR 5250 | Geology and Land-Use Planning | 4 SH |

Calculus 1
Complete one of the following courses:
MATH $1241 \quad$ Calculus 1 SH
MATH $1251 \quad$ Calculus and Differential Equations 4 SH

## Calculus 2

Complete one of the following courses:
MATH $1242 \quad$ Calculus 2 SH
MATH $1252 \quad$ Calculus and Differential Equations 4 SH

## Biology 1

Complete one of the following courses with corresponding lab:
BIOL $1101 \quad$ Principles of Biology 1 SH
with BIOL 1102 Lab for BIOL $1101 \quad 1 \mathrm{SH}$
BIOL $1111 \quad$ General Biology 1
with BIOL 1112 Lab for BIOL 1111
4 SH

General Chemistry 1
Complete the following course with corresponding lab:
CHEM 1211 General Chemistry 1
4 SH
with CHEM 1212 Lab for CHEM 1211

## Biology 2

Complete one of the following courses with corresponding lab:
BIOL 1103 Principles of Biology 2 SH
with BIOL 1104 Lab for BIOL 11031 SH
BIOL 1113 General Biology 24 SH
with BIOL 1114 Lab for BIOL 1113
General Chemistry 2
Complete the following course with corresponding lab:
CHEM 1214 General Chemistry 2
4 SH
with CHEM 1215 Lab for CHEM 1214
1 SH
Earth and Environmental Science Capstone
Complete the following course:
$\begin{array}{ll}\text { ENVR } 4900 \quad \begin{array}{l}\text { Earth and Environmental Science } \\ \text { Capstone }\end{array} & 1 \text { SH }\end{array}$
ENVIRONMENTAL SCIENCE CONCENTRATIONS
Complete the required courses in one of the following concentrations, or complete the independent track in consultation with your advisor:

## Concentration in Surficial Processes

ORGANIC CHEMISTRY
Complete one of the following courses with corresponding lab:
CHEM $1104 \quad$ Organic Chemistry for Health 4 SH
Sciences
with CHEM 1105 Lab for CHEM 11041 SH
CHEM $2311 \quad$ Organic Chemistry 1 SH
with CHEM 2312 Lab for CHEM 23111 SH
SURFICIAL PROCESSES ELECTIVES
Complete four courses from the following list with corresponding labs, as indicated:

| CIVE 2334 | Environmental Engineering 1 |
| :--- | :--- |
| CIVE 2340 | Soil Mechanics |
| ENVR 2310 | Earth Materials |
| with ENVR 2311 | Lab for ENVR 2310 |
| ENVR 3302 | Introduction to Remote Sensing |
| with ENVR 3303 | Lab for ENVR 3302 |
| ENVR 3400 | Field Geology |
| ENVR 3410 | Environmental Geochemistry |
| ENVR 3418 | Geophysics |
| ENVR 4106 | Coastal Processes |
| with ENVR 4107 | Lab for ENVR 4106 |
| ENVR 4504 | Environmental Pollution |
| ENVR 4505 | Wetlands |

4 SH
4 SH
4 SH
1 SH
4 SH
1 SH
4 SH
4 SH
4 SH
4 SH
1 SH
4 SH
4 SH

| ENVR 5190 | Soil Science | 4 SH |
| :--- | :--- | :--- |
| ENVR 5201 | Geologic Field Seminar | 4 SH |
| ENVR 5244 | Sedimentation | 4 SH |
| with ENVR 5245 | Lab for ENVR 5244 | 1 SH |
| ENVR 5270 | Glacial and Quaternary History | 4 SH |
| with ENVR 5271 | Lab for ENVR 5270 | 1 SH |
| ENVR 5280 | Groundwater Modeling | 4 SH |
| ENVR 5282 | Groundwater Geochemistry | 4 SH |

## Concentration in Marine Science

ORGANIC CHEMISTRY
Complete one of the following courses with corresponding lab:

| CHEM 1104 | Organic Chemistry for Health <br> Sciences | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1105 | Lab for CHEM 1104 | 1 SH |
| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |

## MARINE SCIENCE ELECTIVES

Complete either one semester of the Three Seas Marine Biology
Program or the three marine science courses with corresponding
labs, as indicated:

| THREE SEAS PROGRAM |  |  |
| :--- | :--- | :--- |
| BIOL 5501 | Marine Botany | 4 SH |
| with BIOL 5502 | Lab for BIOL 5501 | 1 SH |
| BIOL 5503 | Marine Invertebrate Zoology | 4 SH |
| with BIOL 5504 | Lab for BIOL 5503 | 1 SH |
| BIOL 5505 | Biology of Corals | 3 SH |
| BIOL 5507 | Biology and Ecology of Fishes | 3 SH |
| BIOL 5509 | Marine Birds and Mammals | 2 SH |
| with BIOL 5510 | Lab for BIOL 5509 | 1 SH |
| BIOL 5513 | Tropical Terrestrial Ecology | 1 SH |
| BIOL 5515 | Marine Ecology | 4 SH |
| BIOL 5517 | Oceanography | 2 SH |
| with BIOL 5518 | Lab for BIOL 5517 | 1 SH |
| BIOL 5519 | Ocean and Coastal Processes | 2 SH |
| BIOL 5521 | Experimental Design Marine Ecology | 4 SH |
| with BIOL 5522 | Lab for BIOL 5521 | 1 SH |
| BIOL 5523 | Molecular Marine Biology | 3 SH |
| BIOL 5525 | Marine Microbial Ecology | 2 SH |
| with BIOL 5526 | Lab for BIOL 5525 | 1 SH |

MARINE SCIENCE COURSES
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL $2301 \quad 1 \mathrm{SH}$
BIOL 2311 Ecology 4 SH
with BIOL 2312 Lab for BIOL $2311 \quad 1 \mathrm{SH}$
BIOL 2315 Invertebrate Zoology 4 SH
with BIOL 2316 Lab for BIOL 23151 SH

## Concentration in Wildlife Studies

REQUIRED COURSES
Complete the following three courses with corresponding labs:

| BIOL 2301 | Genetics and Molecular Biology | 4 SH |
| :--- | :--- | :--- |
| with BIOL 2302 | Lab for BIOL 2301 | 1 SH |
| BIOL 2311 | Ecology | 4 SH |
| with BIOL 2312 | Lab for BIOL 2311 | 1 SH |



## BS in Environmental Geology and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Chemistry

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Mathematics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Computer Science and Environmental Science

See page 265.

## BS in Information Science <br> and Environmental Science

See page 274.

## Minor in Environmental Science

## COURSE WORK

Introductory Course Work
Complete one of the following courses or course/lab
combinations:
$\begin{array}{lll}\text { BIOL 1121 } & \text { Basic Microbiology } & 4 \mathrm{SH} \\ \text { with BIOL 1122 } & \text { Lab for BIOL 1121 } & 1 \mathrm{SH}\end{array}$
ENVR 1101 Environmental Science 4 SH

## Science or Engineering

Complete one of the following courses or course/lab combinations based on your major:

## ENGINEERING MAJORS

CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
OTHER MAJORS
CHEM $2311 \quad$ Organic Chemistry 14 SH
with CHEM 2312 Lab for CHEM 23111 SH
CHEM 2321 Analytical Chemistry 4 SH
with CHEM 2322 Lab for CHEM 23211 SH
CIVE 2334 Environmental Engineering 1 SH

## Social Sciences

Complete one of the following courses:

| ECON 3423 | Environmental Economics | 4 SH |
| :--- | :--- | :--- |
| PHIL 1180 | Environmental Ethics | 4 SH |
| POLS 2395 | Environmental Politics | 4 SH |
| SOCL 1246 | Environment and Sociology | 4 SH |
| SOCL 3485 | Environment, Technology, and | 4 SH |
|  | Society |  |

## ELECTIVES

Complete any two courses or course/lab combinations from the following list. Only one course or course/lab combination may be selected from a group:

| Physics Group |  |  |
| :---: | :---: | :---: |
| For nonengineering/nonscience majors only: |  |  |
| PHYS 1132 | Energy, Environment, and Society | 4 SH |
| Biology Group |  |  |
| BIOL 2311 | Ecology | 4 SH |
| BIOL 2317 | Vertebrate Zoology | 4 SH |
| BIOL 5559 | Entomology | 4 SH |
| BIOL 5561 | Herpetology | 4 SH |
| BIOL 5563 | Ornithology | 4 SH |
| BIOL 5565 | Mammalogy | 4 SH |
| BIOL 5567 | Wildlife Biology | 4 SH |
| Environmental Planning Group |  |  |
| ENVR 5210 | Environmental Planning | 4 SH |
| ENVR 5250 | Geology and Land-Use Planning | 4 SH |
| Geology Group |  |  |
| ENVR 2340 | Earth Landforms and Processes | 4 SH |
| with ENVR 2341 | Lab for ENVR 2340 | 1 SH |
| ENVR 4504 | Environmental Pollution | 4 SH |
| ENVR 5190 | Soil Science | 4 SH |
| Hydrogeology Group |  |  |
| ENVR 4500 | Applied Hydrogeology | 4 SH |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH |
| ENVR 5280 | Groundwater Modeling | 4 SH |
| ENVR 5282 | Groundwater Geochemistry | 4 SH |
| Geographic Information Systems Group |  |  |
| ENVR 3300 | Geographic Information Systems | 4 SH |
| with ENVR 3301 | Lab for ENVR 3300 | 1 SH |
| Civil Engineering Group |  |  |
| CIVE 4534 | Environmental Engineering 2 | 3 SH |
| CIVE 4536 | Hydrologic Engineering | 4 SH |
| INTERDISCIPLINARY WORK |  |  |
| Complete the independent project, the applied experience, or the environmental safety program. |  |  |
| Independent Project |  |  |
| See program advisor for approval before embarking on the project. |  |  |
| Applied Experience |  |  |

## Environmental Safety Program

See program advisor for details.

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Geology

## REQUIRED COURSES

Complete the following four courses with corresponding labs:

| ENVR 1200 | Dynamic Earth | 4 SH |
| :--- | :--- | :--- |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH |
| ENVR 1202 | History of Earth and Life | 4 SH |
| with ENVR 1203 | Interpreting Earth History | 1 SH |
| ENVR 2310 | Earth Materials | 4 SH |
| with ENVR 2311 | Lab for ENVR 2310 | 1 SH |
| ENVR 3000 | Igneous Petrology and Volcanology | 4 SH |
| with ENVR 3001 | Lab for ENVR 3000 | 1 SH |

## GEOLOGY ELECTIVE

Complete one ENVR course.

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Environmental Geology

## REQUIRED COURSES

Complete the following four courses with corresponding labs:

| ENVR 1200 | Dynamic Earth | 4 SH |
| :--- | :--- | :--- |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH |
| ENVR 1202 | History of Earth and Life | 4 SH |
| with ENVR 1203 | Interpreting Earth History | 1 SH |
| ENVR 2310 | Earth Materials | 4 SH |
| with ENVR 2311 | Lab for ENVR 2310 | 1 SH |
| ENVR 5210 | Environmental Planning | 4 SH |
| or ENVR 5250 | Geology and Land-Use Planning | 4 SH |

## GEOLOGY ELECTIVE

Complete one ENVR course.
GPA REQUIREMENT
2.000 GPA required in the minor

## ECONOMICS

www.economics.neu.edu

Steven A. Morrison, PhD
Professor and Chair

Office: 301 Lake Hall
Phone: 617.373.2882
Fax: 617.373.3640
E-mail contact: econ@neu.edu

Economics is the study of how societies produce and exchange goods and services to satisfy material needs. Undergraduates may study economics as part of a broad interest in the social sciences to develop specialized skills useful in today's complex labor market. The major in economics is also a good foundation for graduate studies in advanced economics, public policy, law, or business.

Macroeconomics, which focuses on the overall economy, deals with such problems as inflation, unemployment, growth and instability, economic development, and governmental monetary and fiscal policies.

Microeconomics examines the economic behavior of individuals, households, firms, industries, and trade among countries. It seeks to assess the economic effects of market power and environmental damage and analyzes the economic aspects of natural resources, poverty, health, income distribution, trade unions, crime, and government regulation.

Courses in economics cover international trade; the behavior of families, firms, and industries in the market economy; the environmental costs of growth; and the economic aspects of natural resources, poverty, health, labor market discrimination, trade unions, crime, and governmental oversight. International and comparative perspectives are emphasized, most directly in courses in the economic development of the developing world and economic history.

Students may pursue a BA, a BS, or a minor in economics. Additionally, economics majors in their junior year may qualify for admission to a program that combines the BA or BS with a master's degree in economics (requires an additional 16 semester hours of course work). The department also offers dual majors with international affairs, mathematics, and political science.

Graduates may find jobs in major corporations, financial institutions, or federal, state, and local governments. Their work may involve planning and forecasting, assessing labor needs, and undertaking financial studies. They may estimate consumer demand for new products, conduct research, teach, or provide specialized consulting services.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

Academic Progression Standards
For students wishing to major in economics, the following three core courses:
ECON 2315 Macroeconomic Theory 4 SH
ECON 2316 Microeconomic Theory 4 SH
ECON $2350 \quad$ Statistics 4 SH
should be completed within two semesters of qualifying to take them, i.e., within two semesters of completing the following courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |
| MATH 1231 | Calculus for Business and Economics | 4 SH |

In addition, one of the following courses:
ECON $3520 \quad$ History of Economic Thought 4 SH
or ECON 3560 Applied Econometrics 4 SH
(for BS students)
should be completed within two semesters of completing
ECON 2315, ECON 2316, and ECON 2350.
For BS majors, grades earned in the six core courses
(ECON 1115, ECON 1116, ECON 2315, ECON 2316, ECON 2350, and ECON 3560) must average to a 2.000 GPA or better.

For BA majors, grades earned in the six core courses
(ECON 1115, ECON 1116, ECON 2315, ECON 2316, ECON 2350, and ECON 3520) must average to a 2.000 GPA or better.

After admission to the major, all required economics courses must be taken in the day college.

## BA in Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## BREADTH COURSES FOR ECONOMICS MAJOR

## Calculus

Complete the following calculus course:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH

## Computer Science

Complete the following computer science course:

$$
\begin{array}{ll}
\text { CS } 1100 & \begin{array}{c}
\text { Computer Science } \\
\text { and Its Applications }
\end{array}
\end{array}
$$

## ECONOMICS MAJOR REQUIREMENTS FOR BA

## Required Economics Courses

Complete the following six courses. Grades in these courses must average a minimum of 2.000 :

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |
| ECON 2315 | Macroeconomic Theory | 4 SH |


| ECON 2316 | Microeconomic Theory | 4 SH |
| :--- | :--- | :--- |
| ECON 2350 | Statistics | 4 SH |
| ECON 3520 | History of Economic Thought | 4 SH |

## Senior Seminar

Complete the following senior seminar:
ECON $4692 \quad$ Senior Economics Seminar 4 SH

## EXPERIENTIAL EDUCATION REQUIREMENT FOR ECONOMICS

Complete one of the following courses in experiential education, or complete study abroad or co-op:

| ECON 4692 | Senior Economics Seminar | 4 SH |
| :--- | :--- | :--- |
| ECON 4925 | Undergraduate Teaching | 4 SH |

ECON 4970 Junior/Senior Honors Project 1 SH
ECON 4971 Junior/Senior Honors Project 24 SH
ECON 4992 Directed Study 3 or 4 SH

## ECONOMICS ELECTIVES FOR BA

Complete five courses in economics from the following list with no more than one at the introductory level:

## Introductory

ECON 1200 to ECON 1299

## Intermediate

ECON 3400 to ECON 3499

## Advanced

ECON 3560 Applied Econometrics 4 SH
ECON 4600 to ECON 4690
ECON 4900 to ECON 4971
ECON 4992 Directed Study 4 SH

## ECONOMICS MAJOR CREDIT REQUIREMENT

Complete 56 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR ECONOMICS MAJOR

## Calculus

Complete the following calculus course:
MATH 1231 Calculus for Business and Economics 4 SH

## Computer Science

Complete the following computer science course:

| CS 1100 | Computer Science |
| :---: | :---: |
| and Its Applications |  |

## ECONOMICS MAJOR REQUIREMENTS FOR BS

## Required Economics Courses

Complete the following six courses. Grades in these courses must average a minimum GPA of 2.000 :
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH
ECON $2315 \quad$ Macroeconomic Theory 4 SH
ECON 2316 Microeconomic Theory 4 SH
ECON $2350 \quad$ Statistics 4 SH
ECON $3560 \quad$ Applied Econometrics 4 SH

## Senior Seminar

Complete the following course:
ECON $4692 \quad$ Senior Economics Seminar 4 SH

## EXPERIENTIAL EDUCATION REQUIREMENT FOR ECONOMICS <br> Complete one of the following courses in experiential education, or complete study abroad or co-op:

| ECON 4692 | Senior Economics Seminar | 4 SH |
| :--- | :--- | ---: |
| ECON 4925 | Undergraduate Teaching | 4 SH |
|  | $\quad$ Experience 1 |  |
| ECON 4970 | Junior/Senior Honors Project 1 | 4 SH |
| ECON 4971 | Junior/Senior Honors Project 2 | 4 SH |
| ECON 4992 | Directed Study | 3 or 4 SH |

## ECONOMICS ELECTIVES FOR BS

Complete seven courses in economics from the following list with no more than two at the introductory level:

## Introductory

ECON 1200 to ECON 1299

## Intermediate

ECON 3400 to ECON 3499

| Advanced |  |
| :--- | ---: | ---: |
| ECON $3520 \quad$ History of Economic Thought | 4 SH |
| ECON 4600 to ECON 4690 |  |
| ECON 4900 to ECON 4971 |  |
| ECON $4992 \quad$ Directed Study | 4 SH |

## ECONOMICS MAJOR CREDIT REQUIREMENT

Complete 64 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Economics and Mathematics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BA in International Affairs and Economics

See page 148.

## BA in Political Science and Economics

See page 188.

## BS in Political Science and Economics

See page 189.

## BA/MA in Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## BREADTH COURSES FOR ECONOMICS MAJOR

Calculus
Complete the following calculus course:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH
Computer Science
Complete the following computer science course:
CS $1100 \quad 4 \mathrm{SH}$

| Computer Science |
| :--- |
| and Its Applications |

## ECONOMICS MAJOR REQUIREMENTS FOR BA

## Required Economics Courses

Complete the following six courses. Grades in these courses must average a minimum of 2.000 :
ECON $1115 \quad$ Principles of Macroeconomics 4 SH

ECON $1116 \quad$ Principles of Microeconomics 4 SH
ECON $2315 \quad$ Macroeconomic Theory 4 SH

ECON 2316 Microeconomic Theory 4 SH
ECON $2350 \quad$ Statistics 4 SH
ECON $3520 \quad$ History of Economic Thought 4 SH

## Senior Seminar

Complete the following senior seminar:
ECON $4692 \quad$ Senior Economics Seminar 4 SH


## ECONOMICS ELECTIVES FOR BA

Complete five courses in economics from the following list with no more than one at the introductory level:

## Introductory

ECON 1200 to ECON 1299

## Intermediate

ECON 3400 to ECON 3499

## Advanced

ECON 3560 Applied Econometrics 4 SH
ECON 4600 to ECON 4690
ECON 4900 to ECON 4971
ECON 4992 Directed Study

## ECONOMICS MAJOR REQUIREMENTS FOR MA

## Required Economics Courses

Complete the following four courses:
ECON $5105 \quad$ Math and Statistics for Economists 4 SH
ECON $5110 \quad 4$ SH
ECON $5120 \quad 4$ SH
ECON $5140 \quad$ Applied Econometrics 4 SH

## Graduate Electives

Complete four graduate electives from the following range:
ECON 7200 to ECON 7740

## ECONOMICS MA CREDIT/GPA REQUIREMENTS

A minimum of 32 semester hours are required at the graduate level with a GPA of 3.000 or higher.

## ECONOMICS MAJOR CREDIT REQUIREMENT

Complete 80 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

144 total semester hours required
Minimum 2.000 GPA required for undergraduate courses
Minimum 3.000 GPA required for graduate courses

## BS/MA in Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR ECONOMICS MAJOR

## Calculus

Complete the following calculus course:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH

## Computer Science

Complete the following computer science course:

| CS 1100 | Computer Science <br> and Its Applications | 4 SH |
| :---: | :---: | :---: |

## ECONOMICS MAJOR REQUIREMENTS FOR BS

## Required Economics Courses

Complete the following six courses. Grades in these courses must average a minimum of 2.000 :
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON $1116 \quad$ Principles of Microeconomics 4 SH
ECON 2315 Macroeconomic Theory 4 SH
ECON 2316 Microeconomic Theory 4 SH
ECON 2350 Statistics 4 SH
ECON $3560 \quad$ Applied Econometrics 4 SH

## Senior Seminar

Complete the following senior seminar:
ECON $4692 \quad$ Senior Economics Seminar 4 SH

\section*{EXPERIENTIAL EDUCATION REQUIREMENT FOR ECONOMICS <br> Complete one of the following courses in experiential education, or complete study abroad or co-op: <br> | ECON 4925 | Undergraduate Teaching <br> Experience 1 | 4 SH |
| :--- | :--- | ---: |
| ECON 4970 | Junior/Senior Honors Project 1 | 4 SH |
| ECON 4971 | Junior/Senior Honors Project 2 | 4 SH |
| ECON 4992 | Directed Study | 3 or 4 SH |}

## ECONOMICS ELECTIVES FOR BS

Complete seven courses in economics from the following list with no more than two at the introductory level:

## Introductory

ECON 1200 to ECON 1299

## Intermediate

ECON 3400 to ECON 3499

## Advanced

ECON $3520 \quad$ History of Economic Thought 4 SH
ECON 4600 to ECON 4690
ECON 4900 to ECON 4971
ECON 4992 Directed Study 4 SH

## ECONOMICS MAJOR REQUIREMENTS FOR MA

## Required Economics Courses

Complete the following four courses:
ECON $5105 \quad$ Math and Statistics for Economists 4 SH
ECON $5110 \quad$ Microeconomic Theory 4 SH
ECON $5120 \quad$ Macroeconomic Theory 4 SH
ECON $5140 \quad$ Applied Econometrics 4 SH

## Graduate Electives

Complete four graduate electives from the following list:
ECON 7200 to ECON 7740

## ECONOMICS MA CREDIT/GPA REQUIREMENTS

A minimum of 32 semester hours are required at the graduate level with a GPA of 3.000 or higher.

ECONOMICS MAJOR CREDIT REQUIREMENT
Complete 84 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

144 total semester hours required
Minimum 2.000 GPA required for undergraduate courses
Minimum 3.000 GPA required for graduate courses

## Minor in Economics

## REQUIRED COURSES

Complete the following three courses (macroeconomics track complete ECON 2315; microeconomics track complete ECON 2316):
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON $1116 \quad$ Principles of Microeconomics 4 SH
ECON 2315 Macroeconomic Theory 4 SH
or ECON 2316 Microeconomic Theory 4 SH

## ELECTIVE COURSES

Complete three courses in economics from the following list with no more than one at the introductory level:

## Introductory

ECON 1200 to ECON 1299

## Intermediate

ECON 3400 to ECON 3499

## Advanced

ECON $3520 \quad 4$ SH
ECON 3560 Applied Econometrics 4 SH
ECON 4600 to ECON 4699
GPA REQUIREMENT
2.000 GPA required in the minor

## EDUCATION

www.doe.neu.edu

Holly M. Carter, PhD
Associate Professor and Interim Chair

Office: 57 Lake Hall
Phone: 617.373.4153
Fax: 617.373.8924
E-mail contact: Holly M Carter, Associate Professor and Interim Chair, h.carter@neu.edu

The mission of the education program is to prepare communitydedicated educators who foster the academic achievement and personal success of children and youth in diverse urban settings. To carry out this mission, the education program provides
programs of study in which classroom course work is integrated with field experiences and in which candidates demonstrate their understanding of course content through instructional performance. Field placements provide candidates the opportunity to work with Boston Public School (BPS) students, teachers, and parents in a variety of school and community settings and to link education theory with classroom experience.

Students in the education program may select from several program options. They may pursue a minor in elementary or secondary education or a minor plus Massachusetts Department of Education endorsement for licensure (minor plus student teaching). Students who pursue an education minor with elementary licensure must also meet the Massachusetts Department of Education content requirements, which may be completed through their major and the NU Core requirements.

Undergraduate students interested in teaching careers should contact the education program in 26 Nightingale for information on how to apply. To qualify for admission students must:

- Successfully complete EDUC 1111, "Education in the Community," including the 30 -hour community field placement in one of our community partner agencies.
- Be enrolled in an appropriate major in the College of Arts and Sciences. For a minor in elementary education, all arts and sciences majors are acceptable except human services and American Sign Language. (These majors do not match the Department of Education requirements.) For students seeking careers as high school teachers, the minor in secondary education offers preparation to teach biology, chemistry, English, history, mathematics, physics, political science, and Spanish.
- Have a GPA of 2.750 or higher.

To be eligible for student teaching (a licensure requirement), a student must:

- Pass all required Massachusetts Tests for Educators Licensure.
- Maintain a 2.750 GPA and earn a C or better in all education courses.
- Earn satisfactory evaluations from three previous field experiences.
- Complete all education courses required for licensure.
- Apply for student teaching at least one semester in advance.


## BS in Psychology and Education

See page 197.

## Minor in Elementary Education

## REQUIREMENTS IN ADDITION TO BA OR BS DEGREE REQUIREMENTS

## Introductory Courses

Complete the following two courses with corresponding field experience:

| EDUC 1111 | Education in the Community | 4 SH |
| :--- | :--- | :--- |
| with EDUC 1112 | Field Experience | 0 SH |
| EDUC 4504 | Learning and Accomplished Practice | 4 SH |


| dvanced Courses |  |  |
| :---: | :---: | :---: |
| Complete the following five courses with corresponding teaching preparatory lab and field experience: |  |  |
| EDUC 4530 | Race and Urban Education | 4 SH |
| EDUC 4552 | Inquiry in the Humanities and Social Sciences at the Elementary Level | 4 SH |
| EDUC 4553 | Inquiry in Math and Science at the Elementary Level | 4 SH |
| with EDUC 4947 | Teaching Preparatory Lab 3 | 0 SH |
| EDUC 4567 | Literacy Development and Instruction | H |
| with EDUC 3521 | Field Experience | 0 SH |
| EDUC 4570 | Inclusion, Equity, and Diversity | 4 SH |

## GPA/GRADE REQUIREMENTS

2.750 GPA required and a grade of C or better in all required education courses

## Minor in Elementary Education with Licensure

## REQUIREMENTS IN ADDITION TO BA OR BS DEGREE REQUIREMENTS

## Introductory Courses

Complete the following two courses with corresponding field experience:
EDUC $1111 \quad$ Education in the Community 4 SH
with EDUC 1112 Field Experience 0 SH
EDUC 4504 Learning and Accomplished Practice 4 SH

## Advanced Courses for Massachusetts Licensure

Complete the following five courses with corresponding teaching preparatory lab and field experience:
EDUC $4530 \quad$ Race and Urban Education 4 SH
EDUC 4552 Inquiry in the Humanities and Social 4 SH
Sciences at the Elementary Level
EDUC 4553
Inquiry in Math and Science at the Elementary Level
with EDUC 4947 Teaching Preparatory Lab 30 SH
EDUC 4567 Literacy Development and Instruction 4 SH
with EDUC 3521 Field Experience 0 SH
EDUC 4570 Inclusion, Equity, and Diversity 4 SH

## Additional State Licensure Requirements

Students must pass the following Massachusetts Tests for
Educator Licensure (MTEL) prior to taking the practicum:

- Communication and Literacy Skills
- Foundations of Reading
- General Curriculum

Students must also complete 36 semester hours in Massachusetts
Department of Education Categories through the courses in the major, courses in the NU Core, and elective courses.

## Practicum and Seminar

Enroll concurrently in and complete the following teaching practicum and seminar after passing all subtests of MTEL. Only 8 of the total 12 semester hours may be used to meet graduation requirements:

| EDUC 4850 | Teaching Practicum | 8 SH |
| :--- | :--- | :--- |
| EDUC 4851 | Teaching Seminar | 4 SH |

## GPA/GRADE REQUIREMENTS

2.750 GPA required and a grade of C or better in all required education courses

## Minor in Secondary Education

## REQUIREMENTS IN ADDITION TO BA OR BS DEGREE REQUIREMENTS

## Introductory Courses

Complete the following two courses with corresponding field experience:

| EDUC 1111 | Education in the Community | 4 SH |
| :--- | :--- | :--- |
| with EDUC 1112 | Field Experience | 0 SH |
| EDUC 4504 | Learning and Accomplished Practice | 4 SH |

## Advanced Courses

ADVANCED COURSES
Complete the following four courses with corresponding literacy fieldwork:

| EDUC 4511 | Curriculum Design and Assessment | 4 SH |
| :---: | :---: | :---: |
| EDUC 4521 | Language, Culture, and Literacy in Middle and High Schools | 4 SH |
| with EDUC 3568 | Literacy Field | 0 SH |
| EDUC 4530 | Race and Urban Education | 4 SH |
| EDUC 4570 | Inclusion, Equity, and Diversity | 4 SH |

TEACHING IN THE DISCIPLINES
Complete one of the following courses with corresponding field experience:
EDUC $4522 \quad$ Teaching the Language Arts 4 SH
or EDUC 4524 Teaching History 4 SH
or EDUC 4525 Teaching Science 4 SH
or EDUC 4526 Teaching Mathematics 4 SH
EDUC $4936 \quad$ Disciplines Field 0 SH

## GPA/GRADE REQUIREMENTS

2.750 GPA required and a grade of C or better in all education courses

## Minor in Secondary Education with Licensure

REQUIREMENTS IN ADDITION TO BA OR BS DEGREE REQUIREMENTS

## Introductory Courses

Complete the following two courses with corresponding field experience:

| EDUC 1111 | Education in the Community | 4 SH |
| :--- | :--- | :--- |
| with EDUC 1112 | Field Experience | 0 SH |
| EDUC 4504 | Learning and Accomplished Practice | 4 SH |


| Advanced Courses for Massachusetts Licensure |  |  |
| :---: | :---: | :---: |
| ADVANCED COURSES |  |  |
| Complete the following four courses with corresponding literacy fieldwork: |  |  |
| EDUC 4511 | Curriculum Design and Assessment | 4 SH |
| EDUC 4521 | Language, Culture, and Literacy in Middle and High Schools | 4 SH |
| with EDUC 3568 | Literacy Field | 0 SH |
| EDUC 4530 | Race and Urban Education | SH |
| EDUC 4570 | Inclusion, Equity, and Diversity | 4 SH |
| TEACHING IN THE DISCIPLINES |  |  |
| Complete one of the following courses with corresponding field experience: |  |  |
| EDUC 4522 | Teaching the Language Arts | 4 SH |
| or EDUC 4524 | Teaching History and the Social Studies | 4 SH |
| or EDUC 4525 | Teaching Science | 4 SH |
| or EDUC 4526 | Teaching Mathematics | 4 SH |
| EDUC 4936 | Disciplines Field | 0 SH |

Additional State Licensure Requirements
Students must pass the following Massachusetts Tests for Educator Licensure (MTEL) prior to taking the practicum:

- Communication and Literacy Skills
- Subject Matter Knowledge


## Practicum and Seminar

Enroll concurrently in and complete the following teaching practicum and seminar after passing all subtests of MTEL. Only 8 of the total 12 semester hours may be used to meet graduation requirements:

| EDUC 4850 | Teaching Practicum | 8 SH |
| :--- | :--- | :--- |
| EDUC 4851 | Teaching Seminar | 4 SH |

## GPA/GRADE REQUIREMENTS

2.750 GPA required and a grade of C or better in all education courses

## ENGLISH

www.english.neu.edu
Laura Green
Associate Professor and Chair

Office: 406 Holmes Hall
Phone: 617.373.4540
Fax: 617.373.2509
E-mail contact: Linda Collins, Administrative Specialist, li.collins@neu.edu

EEnglish studies at Northeastern comprise a range of fields: literary studies, rhetoric and composition, linguistics, film, and creative writing. The Department of English offers a major and
four minors, as well as dual majors with cinema studies and linguistics.

The major in English surveys the historical and cultural contexts and contributions of English, American, and other Anglophone literatures from the Middle Ages through the present, providing exposure to a variety of theoretical and methodological approaches to the study of language, rhetoric, and literature.

The minor in literature provides students with a short but coherent overview of several areas of English studies. The minor in writing allows students to select freely from a range of offerings in creative, technical, and expository writing as well as rhetoric. The interdisciplinary minor in rhetoric draws on courses in communication studies as well as English, while the interdisciplinary minor in technical communication includes courses in rhetoric and technical communication as well as courses from other departments, such as psychology and philosophy.

Course work in English offers students the opportunity to develop skills of reading, analysis, and expression in great demand in the workplace and in graduate and professional programs: the ability to interpret and evaluate a variety of texts, to evaluate and produce arguments, and to write appropriately for an audience. The major and minors are particularly suitable for students preparing for careers or graduate school in teaching and research, writing and publishing, media and communications, and any field that demands analytical ability and well-honed writing skills, such as law or business.

## Transferring to the Major

Students are required to have a 2.000 GPA to transfer to the major after the freshman year. Transfer students must have at least a 2.500 GPA in their English courses within one semester of declaring the major. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the program.

## Academic Progression Standards

All majors must have at least a 2.500 GPA in their English courses by the end of their sophomore year.

## BA in English

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENGLISH MAJOR REQUIREMENTS

## Literature Backgrounds

Complete the following course:
ENGL $2100 \quad$ Backgrounds to English and American 4 SH Literature

## Literature Survey

Complete three courses from the following list:
ENGL 2220 Survey of British Literature 1 SH

ENGL 2221 Survey of British Literature 2
ENGL 2223 Survey of American Literature 1
ENGL 2224 Survey of American Literature 2
4 SH
4 SH
4 SH

## Shakespeare Course

Complete one course from the following list:
ENGL 2300 Introduction to Shakespeare
ENGL 3489 Shakespeare on Film
ENGL 3612 Shakespeare's Comedies
ENGL 3613 Shakespeare's Tragedies
ENGL 3614 Topics in Shakespeare
Major Figure Course
Complete one course from the following list:
ENGL $3600 \quad$ Major Figure 4 SH
ENGL 3607 Chaucer
ENGL 3608 Topics in Chaucer
ENGL 3618 Milton
4 SH
4 SH
4 SH
4 SH
4 SH

## Literary Periods

Complete one course from three different century groups:

## LITERATURE FROM THE ELEVENTH TO FIFTEENTH CENTURIES

Complete one course from the following list:
ENGL $4605 \quad$ Medieval English Literature 4 SH
ENGL 4606 Topics in Medieval Literature 4 SH
LITERATURE IN THE SIXTEENTH CENTURY
Complete one course from the following list:
ENGL 4609 Topics in Sixteenth-Century British Literature
ENGL 4610 Sixteenth-Century British Literature
LITERATURE IN THE SEVENTEENTH CENTURY
Complete one course from the following list:
ENGL 4616 Topics in Seventeenth-Century British Literature
ENGL 4617 Seventeenth-Century British 4 SH Literature

## LITERATURE IN THE EIGHTEENTH CENTURY

Complete one course from the following list:
ENGL 4619 Eighteenth-Century British Literature
4 SH
ENGL 4620 Topics in Eighteenth-Century British
Literature
ENGL 4661 Early American Literature 4 SH
ENGL 4663 Early African-American Literature 4 SH
ENGL 4664 Topics in Eighteenth-Century 4 SH
American Literature
LITERATURE IN THE NINETEENTH CENTURY
Complete one course from the following list:

| ENGL 4519 | American Novels 1 | 4 SH |
| :--- | :--- | :--- |
| ENGL 4621 | Romantic Poetry | 4 SH |
| ENGL 4622 | Topics in Romantic Literature | 4 SH |
| ENGL 4624 | Victorian Literature | 4 SH |


| ENGL 4625 | Topics in Victorian Literature | SH |
| :---: | :---: | :---: |
| ENGL 4626 | Nineteenth-Century British Fiction | 4 SH |
| ENGL 4627 | Topics in Nineteenth-Century British Literature | 4 SH |
| ENGL 4663 | Early African-American Literature | 4 SH |
| ENGL 4665 | The American Renaissance | 4 SH |
| ENGL 4666 | Topics in Nineteenth-Century American Literature | 4 SH |
| ENGL 4667 | American Realism | 4 SH |
| LITERATURE IN THE TWENTIETH CENTURY Complete one course from the following list: |  |  |
|  |  |  |
| CINE 2394 | Modern Film | 4 SH |
| ENGL 3408 | The Modern Bestseller | 4 SH |
| ENGL 3671 | Multiethnic Literatures of the U.S. | 4 SH |
| ENGL 3672 | Asian-American Literature | 4 SH |
| ENGL 3673 | U.S. Latino/Latina Literature | 4 SH |
| ENGL 3674 | American Indian Literature | 4 SH |
| ENGL 4520 | American Novels 2 | 4 SH |
| ENGL 4631 | Twentieth-Century British Literature | 4 SH |
| ENGL 4668 | Modern American Literature | 4 SH |
| ENGL 4669 | Topics in Twentieth-Century American Literature | 4 SH |
| ENGL 4670 | Modern African-American Literature | 4 SH |
| ENGL 4673 | Modern Drama | 4 SH |
| ENGL 4674 | Modern Poetry | 4 SH |
| ENGL 4676 | Contemporary American Literature | 4 SH |
| ENGL 4678 | Contemporary Poetry | 4 SH |
| ENGL 4683 | Postcolonial Literature | 4 SH |
| ENGL 4684 | Topics in Postcolonial Literature | 4 SH |

## Literary Criticism, Linguistics, or Rhetoric

Complete one course from any of the categories below:
CRITICISM

| ENGL 3337 | Literary Theory | 4 SH |
| :--- | :--- | :--- |
| ENGL 3339 | Topics in Literary Criticism | 4 SH |


| LINGUISTICS |  |  |
| :--- | :--- | :--- |
| LING 1150 | Introduction to Language and |  |

LING $3450 \quad$ Syntax 4 SH
LING 3452 Semantics 4 SH
LING 3454 History of English 4 SH
LING $3456 \quad$ Language and Gender 4 SH
LING 3458 Topics in Linguistics 4 SH
ENGL $1160 \quad$ Introduction to Rhetoric 4 SH
ENGL $3322 \quad$ Topics in Rhetoric 4 SH
ENGL 3325 Rhetoric of Law 4 SH

## Capstone Seminar

Complete one course from the following list:
ENGL $4710 \quad$ Junior/Senior Seminar 4 SH
LING $4654 \quad$ Seminar in Linguistics 4 SH

## English Electives

Complete two ENGL courses that are not part of the BA core writing requirements; CINE courses from the following may also be used:

| CINE 2256 | Culture of the Body: Cinematic <br> Representations | 4 SH |
| :--- | :--- | :--- |
| CINE 2355 | Film and Madness | 4 SH |
| CINE 2394 | Modern Film | 4 SH |
| CINE 3388 | Topics in American Film | 4 SH |
| CINE 3392 | Women and Film: The Gendered Gaze | 4 SH |
| CINE 3395 | American Film Survey | 4 SH |

## EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education from the list below or study abroad through NU's international study program. An education practicum or seminar may also be used.

## Experiential Education Course Work

ENGL 3381 The Writing Process 4 SH
ENGL $3382 \quad$ Publication Arts 4 SH
ENGL 4694 Topics in Experiential Education 4 SH
ENGL 4994 Internship 4 SH

## Experiential Education for Education Minors

Education minors automatically fulfill the experiential education requirement for English. See the curriculum guide for education beginning on page 113.

## Study Abroad

Complete a semester abroad or one Dialogue of Civilizations experience.

## ENGLISH MAJOR CREDIT REQUIREMENT

Complete 56 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and English

See page 89 .

## BA in Linguistics and English

See page 164.

## BA/MA in English

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Minor in Literature

## ENGLISH SURVEY COURSE

Complete one course from the following list:
ENGL 2220 Survey of British Literature 14 SH

ENGL 2221 Survey of British Literature 2 SH
ENGL 2223 Survey of American Literature 14 SH
ENGL 2224 Survey of American Literature 24 SH
BACKGROUNDS OR SHAKESPEARE
Complete one course from the following list:
ENGL $2100 \quad$ Backgrounds to English and American 4 SH
Literature
ENGL 2300 Introduction to Shakespeare 4 SH
ENGL 3489 Shakespeare on Film 4 SH
or ENGL 3612 Shakespeare's Comedies 4 SH
ENGL 3613 Shakespeare's Tragedies 4 SH
ENGL 3614 Topics in Shakespeare 4 SH

| LITERARY CRITICISM, LINGUISTICS, ORRHETORIC |  |  |
| :---: | :---: | :---: |
| Complete one course from the following list: |  |  |
| ENGL 1160 | Introduction to Rhetoric | 4 SH |
| ENGL 3322 | Topics in Rhetoric | 4 SH |
| ENGL 3325 | Rhetoric of Law | 4 SH |
| ENGL 3337 | Literary Theory | 4 SH |
| ENGL 3339 | Topics in Literary Criticism | 4 SH |
| LING 1150 | Introduction to Language and Linguistics | 4 SH |
| LING 2350 | Linguistic Analysis | 4 SH |
| LING 3458 | Topics in Linguistics | 4 SH |
| LING 4654 | Seminar in Linguistics | 4 SH |

## ELECTIVE

Complete one ENGL course or one of the CINE courses listed below. Note: The following ENGL courses may not be used for this requirement: ENGL 1000, ENGL 1101, ENGL 1102, ENGL 1110, ENGL 1111, ENGL 3300 through ENGL 3311, ENGL 3313, and ENGL 3319.
CINE 2256 Culture of the Body: Cinematic 4 SH

CINE $2355 \quad$ Film and Madness 4 SH
CINE 2394 Modern Film 4 SH
CINE $3388 \quad$ Topics in American Film 4 SH
CINE $3392 \quad$ Women and Film: The Gendered Gaze 4 SH
CINE 3395 American Film Survey 4 SH
GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in Technical Communication

## REQUIRED COURSE

Complete the following course:
ENGL 3320 Technical Communication 1
4 SH

## LANGUAGE OR COMMUNICATION THEORY ELECTIVE

Complete one of the following courses:
COMM 3331 Argumentation and Debate 4 SH

ENGL 1160 Introduction to Rhetoric 4 SH
ENGL 3322
ENGL 3323 Topics in Technical Communication

## WRITING FOR THE WORKPLACE ELECTIVE

Complete the following course:
ENGL 3321 Technical Communication 2

## TECHNOLOGY IN SOCIETY ELECTIVE

Complete one of the following courses:
ENGL 3427 The Literature of Science 4 SH
HIST 1222 History of Science and Technology 4 SH
HIST 2321 Technological Transformations 4 SH
PHIL 1145 Technology and Human Values 4 SH
POLS $2390 \quad$ Science, Technology, and Public Policy
SOCL 3485
Environment, Technology, and Society
SOCL 4528
Computers and Society

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Writing

## WRITING COURSES

Complete four courses from the following list:
CINE 3389 Screenwriting
ENGL 1160 Introduction to Rhetoric
ENGL 3320 Technical Communication 1
ENGL 3321 Technical Communication 2
ENGL 3322 Topics in Rhetoric
ENGL 3323 Topics in Technical Communication
ENGL 3325 Rhetoric of Law
ENGL 3372 Creative Writing
ENGL $3377 \quad$ Poetry Workshop
ENGL 3378 Fiction Workshop
ENGL 3379 Nonfiction Workshop
ENGL 3380 Topics in Writing
ENGL 3381 The Writing Process
ENGL 3382 Publication Arts

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Rhetoric

See page 101.

## ENVIRONMENTAL STUDIES

www.ees.neu.edu

Jennifer Rivers Cole, PhD
Associate Academic Specialist
and Director of the Environmental Studies Program

Office: 14 Holmes Hall
Phone: 617.373.3176
Fax: 617.373.4378
E-mail contact: Jennifer Cole, Associate Academic Specialist and Director, j.cole@neu.edu

The Bachelor of Arts in Environmental Studies degree is designed to provide a flexible platform for students whose primary interest is in the area of environmental policy. In their first two years, all environmental studies majors complete introductory courses in the sciences (biology, chemistry, geology), as well as introductory- to intermediate-level course work in economics, political science, philosophy, and sociology. Students then work with a faculty advisor to select a cluster composed of intermediate- to upper-level courses in an area appropriate to the student's career objectives. These cluster areas include sustainability, urban environmental issues, water issues, international affairs, public policy, and marine studies. A senior thesis is required in the environmental studies major. (Students who are interested in studying environmental issues from a science-based perspective should read the description of the environmental science major beginning on page 105.)

A number of dual-major programs are offered; these can help focus a student's course choices along avenues that faculty feel are particularly appropriate.

Students in the environmental studies program are prepared to work in environmental planning, regulation, policy, or compliance. These broad-based programs also aim to prepare students to go into environmental education or law. Co-op experiences in environmental planning may include government internships or work in environmental compliance offices.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BA in Environmental Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENVIRONMENTAL STUDIES MAJOR REQUIREMENTS

## Science Courses

Complete the following three courses with corresponding lab, where indicated:

| BIOL 1145 | Environment and Humankind | 4 SH |
| :--- | :--- | :--- |
| CHEM 1101 | General Chemistry for Health | 4 SH |

with CHEM 1102 Lab for CHEM 1101 SH
ENVR 1101 Environmental Science 4 SH

## Ethics Course

Complete the following course:
PHIL $1180 \quad 4$ SH

## Economics Course

Complete the following course:
ECON 1116 Principles of Microeconomics

## Sociology Course

Complete the following course:
SOCL 1246 Environment and Sociology

## Political Science Courses

Complete the following two courses:
POLS 1150 American Government
POLS 2395 Environmental Politics

## Geology Courses

Complete the following two courses:

| ENVR 1112 | Environmental Geology | 4 SH |
| :--- | :--- | :--- |
| ENVR 5210 | Environmental Planning | 4 SH |

## Statistics Course

Complete one course from the following list:
ECON 2350 Statistics
MATH $2280 \quad$ Statistics and Software
POLS 2400 Quantitative Techniques
SOCL $2320 \quad$ Statistical Analysis in Sociology

## Senior Thesis

Complete the following course:
IDSC 4997 Senior Thesis

## ENVIRONMENTAL STUDIES CLUSTER

Complete one of the following clusters:

## International Cluster

Complete six courses from the following list:

| HIST 1222 | History of Science and Technology |
| :--- | :--- |
| HIST 2320 | Wealth and Poverty |
| HIST 3412 | Global Environmental History |
| HIST 4620 | Topics in Historical Geography |
| PHIL 3480 | Environmental Philosophy |


| POLS 2395 | Environmental Politics | 4 SH |
| :--- | :--- | :--- |
| SOCL 3485 | Environment, Technology, and <br> Society | 4 SH |
| SOCL 4522 | Political Ecology and Environmental <br> Justice | 4 SH |
| URBS 2357 | Growth and Decline of Cities <br> and Suburbs | 4 SH |
| or POLS 2357 | Growth and Decline of Cities <br> and Suburbs | 4 SH |

## Marine Cluster

Complete six courses from the following list:

| ENVR 2940 | Oceans in the Global Carbon Cycle | 4 SH |
| :--- | :--- | :--- |
| ENVR 2941 | Ocean Science and Public Policy | 4 SH |
| ENVR 2942 | Maritime History and Culture: The | 4 SH |

ENVR 2943 Marine Environmental History: The 4 SH
Caribbean
ENVR $3100 \quad 3 \mathrm{SH}$
ENVR $3101 \quad$ Nautical Science 3 SH
ENVR $3102 \quad 3$ SH
ENVR 3103 Practical Oceanography 14 SH
ENVR 3104 Practical Oceanography 24 SH
ENVR 4106 Coastal Processes 4 SH
ENVR 4505 Wetlands 4 SH
ENVR 5244 Sedimentation 4 SH
ENVR $5248 \quad 4$ SH
MARS $3200 \quad 4 \mathrm{SH}$
MARS $3210 \quad 4 \mathrm{SH}$
MARS 3300 The Ocean World 4 SH
MARS 3305 Maritime History of New England 4 SH
MARS 3310 Water Resources Policy and 4 SH

MARS 3325 Coastal Zone Management 4 SH
MARS 3425 Biology of Fishes 4 SH
MARS $3430 \quad$ Biology of Whales 4 SH
MARS $4500 \quad$ Advanced Seminar in Marine Studies 4 SH
Policy Cluster
Complete six courses from the following list:
ENVR $4515 \quad$ Sustainable Development 4 SH
ENVR $5280 \quad 4 \mathrm{SH}$
ENVR $5282 \quad 4 \mathrm{SH}$
HIST $4620 \quad$ Topics in Historical Geography 4 SH
HIST $5295 \quad$ Population in History 4 SH
LPSC 2301 Introduction to Law, Policy, and 4 SH Society
POLS 2395 Environmental Politics 4 SH
SOCL $4522 \quad$ Political Ecology and Environmental 4 SH Justice

## Sustainability Cluster

Complete six courses from the following list:

| ENVR 4505 | Wetlands | 4 SH |
| :--- | :--- | :--- |
| or MARS 3315 | Wetlands: Ecology and Hydrology | 4 SH |
| ENVR 4515 | Sustainable Development | 4 SH |
| HIST 1222 | History of Science and Technology | 4 SH |


| HIST 2321 | Technological Transformations | 4 SH |
| :---: | :---: | :---: |
| HIST 3412 | Global Environmental History | 4 SH |
| HIST 4620 | Topics in Historical Geography | 4 SH |
| HIST 5295 | Population in History | 4 SH |
| HONR 3342 | Topics in Contemporary Issues: Focus on Analysis | 4 SH |
| MARS 3310 | Water Resources Policy and Management | 4 SH |
| Urban Cluster |  |  |
| Complete six courses from the following list: |  |  |
| ECON 3415 | Poverty and Income | 4 SH |
| ECON 3420 | Urban Economic Issues | 4 SH |
| ECON 3422 | Economics of Transportation | 4 SH |
| ECON 3423 | Environmental Economics | 4 SH |
| ENVR 4515 | Sustainable Development | 4 SH |
| HIST 1222 | History of Science and Technology | 4 SH |
| HIST 2320 | Wealth and Poverty | 4 SH |
| HIST 2321 | Technological Transformations | 4 SH |
| HIST 4620 | Topics in Historical Geography | 4 SH |
| HIST 5295 | Population in History | 4 SH |
| PHIL 3480 | Environmental Philosophy | 4 SH |
| SOCL 1247 | Urban Social Problems | 4 SH |
| SOCL 3485 | Environment, Technology, and Society | 4 SH |
| SOCL 4522 | Political Ecology and Environmental Justice | 4 SH |
| URBS 2357 | Growth and Decline of Cities and Suburbs | 4 SH |
| Water Cluster |  |  |
| Complete six courses from the following list with corresponding lab, if applicable: |  |  |
| ENVR 4500 | Applied Hydrogeology | 4 SH |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH |
| ENVR 4505 | Wetlands | 4 SH |
| or MARS 3300 | The Ocean World | 4 SH |
| ENVR 4515 | Sustainable Development | 4 SH |
| MARS 3310 | Water Resources Policy and Management | 4 SH |
| MARS 3315 | Wetlands: Ecology and Hydrology | 4 SH |
| MARS 3325 | Coastal Zone Management | 4 SH |

## Interdisciplinary Cluster

Create a plan of six courses under the guidance of the program director.

## EXPERIENTIAL LEARNING REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

## ENVIRONMENTAL STUDIES MAJOR CREDIT REQUIREMENT <br> Complete 73 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

COOPERATIVE EDUCATION
If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Studies and History

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENVIRONMENTAL STUDIES REQUIREMENTS

## Science Requirements

Complete the following three courses with corresponding lab:
BIOL 1145 Environment and Humankind 4 SH
ENVR 11014 SH

ENVR $1202 \quad$ History of Earth and Life 4 SH
with ENVR 1203 Interpreting Earth History 1 SH
Humanities Requirement
Complete the following course:
PHIL $1180 \quad 4$ SH

## Social Science Requirements

Complete the following three courses:
ECON $1116 \quad$ Principles of Microeconomics 4 SH
POLS $1150 \quad$ American Government 4 SH

SOCL 1246 Environment and Sociology 4 SH

## Environmental Studies Electives

Complete two courses from the following list:

| ECON 3423 | Environmental Economics | 4 SH |
| :--- | :--- | :--- |
| PHIL 3480 | Environmental Philosophy | 4 SH |
| POLS 2395 | Environmental Politics | 4 SH |

## HISTORY REQUIREMENTS

## History Requirements

Complete the following six courses:
HIST $1130 \quad$ Introduction to American History 4 SH

HIST $1170 \quad$ Introduction to European History 4 SH
HIST 1201 The History Colloquium 4 SH
HIST $2301 \quad$ The History Seminar 4 SH
HIST $2302 \quad 1 \mathrm{SH}$
HIST 2342 Environmental History of North 4 SH
America

## History-Geographic Area Electives

Complete two courses from the following list:

| ASNS 1150 | East Asian Studies | 4 SH |
| :--- | :--- | :--- |
| HIST 1180 | African History | 4 SH |
| HIST 1185 | Introduction to Middle Eastern | 4 SH |
|  | $\quad$ History |  |
| HIST 1210 | Atlantic Connection | 4 SH |


| HIST 1251 | Modern East Asia | 4 SH |
| :--- | :--- | :--- |
| HIST 1254 | Contemporary China | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 1265 | Canadian History | 4 SH |

## History-Area Electives

Complete four HIST courses, approved by a faculty advisor, focused on an idea or geographic area. These courses must be at the 2000-level or higher.

## INTEGRATIVE COURSES

## Required Integrative Course

Complete the following course with corresponding lab:
ENVR 3300 Geographic Information Systems 4 SH
with ENVR 3301 Lab for ENVR 33001 SH
Integrated Elective
Complete one course from the following list:

| ENVR 5210 | Environmental Planning | 4 SH |
| :--- | :--- | :--- |
| ENVR 5250 | Geology and Land-Use Planning | 4 SH |
| HIST 1222 | History of Science and Technology | 4 SH |

## EXPERIENTIAL EDUCATION AND CAPSTONE

## Experiential Education

Complete an approved activity from either department, combined with reflection in capstone.

## Capstone Course

Complete one of the following courses:
ENVR $4900 \quad$ Earth and Environmental Science 1 SH
ENVR $4970 \quad$ Junior/Senior Honors Project $1 \quad 4$ SH
HIST $4701 \quad$ Capstone Seminar 4 SH
IDSC 4997 Senior Thesis 4 SH

## ENVIRONMENTAL STUDIES AND HISTORY DUALMAJOR CREDIT REQUIREMENT

Complete 91 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Studies and International Affairs

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENVIRONMENTAL STUDIES REQUIREMENTS

## Social Science Component

Complete one course from each of the following three subject areas:

PHILOSOPHY

| PHIL 1180 | Environmental Ethics | 4 SH |
| :--- | :--- | :--- |
| PHIL 3480 | Environmental Philosophy | 4 SH |
| SOCIOLOGY |  |  |
| SOCL 1246 | Environment and Sociology | 4 SH |

## POLITICAL SCIENCE

POLS 2395 Environmental Politics 4 SH

## Science Component

Complete one course from each of the following five subject areas with corresponding lab, if applicable:

| BIOLOGY |  |  |
| :---: | :---: | :---: |
| BIOL 1145 | Environment and Humankind | 4 SH |
| EARTH AND ENVIRONMENTAL SCIENCES |  |  |
| ENVR 1104 | Natural Disasters and Catastrophes | 4 SH |
| ENVR 1112 | Environmental Geology | 4 SH |
| ENVR 1200 | Dynamic Earth | 4 SH |
| ENVIRONMENT |  |  |
| ENVR 1101 | Environmental Science | 4 SH |
| QUANTITATIVE METHODS |  |  |
| ENVR 3300 | Geographic Information Systems | 4 SH |
| with ENVR 3301 | Lab for ENVR 3300 | 1 SH |
| MATH 2280 | Statistics and Software | 4 SH |
| PLANNING |  |  |
| ENVR 5210 | Environmental Planning | 4 SH |
| ENVR 5250 | Geology and Land-Use Planning | 4 SH |

## INTERNATIONAL AFFAIRS REQUIREMENTS

## Required Courses

Complete the following three courses:

| INTL 1101 | Globalization and International Affairs | 4 SH |
| :--- | :--- | :--- |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |

## Regional Analysis

Complete two regional analysis courses, both of which must be in one region, from the following lists. Summer-session study abroads are acceptable in combination with "Dialogue of Civilizations." See department for additional courses.
AFRICA
AFRS 2307 Africa Today 4 SH

AFRS $2390 \quad$ Africa and the World in Early Times 4 SH
or HIST 2390 Africa and the World in Early Times 4 SH
AFRS 2391 Modern African Civilization 4 SH
AFRS 2392 African Diaspora 4 SH
AFRS $3424 \quad$ Black Pandemics/Epidemiology of 4 SH

AFRS $3428 \quad$ African Languages 4 SH
AFRS 3460 Contemporary Government and 4 SH

AFRS 3470
AFRS 4645
AFRS 4690
ANTH 4510
HIST 1180
HIST 2397
MUSC 1128
ASIA
ASNS 1150
ASNS 3444
CLTR 1260
CLTR 1500
CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252
HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485
RELS 1275
RELS 1290
RELS 3398
EUROPE
CLTR 1265
CLTR 1280
CLTR 1501
CLTR 1503
CLTR 1504
CLTR 2504
ECON 1293
HIST 1170
HIST 1272
HIST 1280
HIST 1281
HIST 1294

HIST 2371
HIST 2372
HIST 2375

HIST 2376
HIST 2377

| Identity and Nationalism in Africa | 4 SH |
| :--- | :--- |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | 4 SH |
| Colonialism and Contemporary Africa | 4 SH |
| Music of Africa | 4 SH |

East Asian Studies 4 SH
Topics in Japanese Studies 4 SH
Japanese Film
Backgrounds of Chinese Culture 4 SH
Introduction to Japanese Pop Culture 4 SH
Chinese Film: Gender and Ethnicity 4 SH
Introduction to South Asian History 4 SH
Emergence of East Asia 4 SH
Modern East Asia
Japanese Literature and Culture 4 SH
History of Vietnam Wars 4 SH
Contemporary China
Chinese Civilization in Her Eyes
4 SH
4 SH
4 SH

## China

Modern China 4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH

4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
European Jewish History
1750-1945
Europe 1870-1921 4 SH
Gender and Society in Modern Europe 4 SH
Culture and Identity in Early Modern 4 SH
England
The British Empire 4 SH
Ireland and the Irish Migration 4 SH

| HIST 2388 | Borderlands: World War II in Eastern Europe | 4 SH |
| :---: | :---: | :---: |
| HIST 3475 | The Culture of Europe | 4 SH |
| HIST 3485 | Vienna, Prague, Budapest | 4 SH |
| HIST 4670 | Topics in European History | 4 SH |
| HIST 4682 | Topics in East European History | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |
| POLS 3435 | Politics in Western Europe | 4 SH |
| POLS 3440 | Politics in Northern Ireland | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| LATIN AMERICA |  |  |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |


| HIST 1290 | Modern Middle East | 4 SH | ECON 1290 | The Global Economy | 4 SH |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH | ECON 3404 | International Food Economics and | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |  | Policy |  |
| HIST 2393 | Islam and Empires | 4 SH | ECON 4635 | International Economics | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH | HIST 1110 | Introduction to World History | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH | HIST 1202 | Global Inequity | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH | HIST 1204 | Third World Women | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH | HIST 1205 | The Global Economy | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH | HIST 1211 | World History since 1945 | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH | HIST 1214 | War in the Modern World | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and | 4 SH | HIST 2315 | Approaches to World History | 4 SH |
|  | Economic Development in the |  | HIST 3452 | Global Chinese Migration | 4 SH |
|  | Mediterranean Basin |  | HUSV 4920 | International Human Services | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH | IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH | IDSC 4906 | Social/Economic Development Lab | 4 SH |
| POLS 4915 | Model Arab League | 4 SH | INTB 1201 | Global Environment of International | 4 SH |
| RELS 1280 | Islam | 4 SH |  | Business |  |
| RELS 1285 | Jewish Religion and Culture | 4 SH | INTB 1203 | International Business and Global | 4 SH |
| RUSSIA |  |  |  | Social Responsibility |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH | INTB 1209 | Global Environment of International | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |  | Business |  |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH | INTB 3310 | Cultural Aspects of International Business | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH | INTL 3460 | Transnational Activism in Global | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |  | Civil Society |  |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH | INTL 4939 | Dialogue of Civilizations: <br> Globalization, Humanities, and | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH |  | Cultural Studies |  |
| HIST 4681 | Topics in Soviet History | 4 SH | INTL 4940 | Global Corps Practicum | 4 SH |
| IDSC 3443 | Topics in Russian Studies | 4 SH | LING 3412 | Language and Culture | 4 SH |
| LITR 3503 | Russian Literature in Translation | 4 SH | LPSC 2302 | Global Human Rights: A Social and | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH |  | Economic Perspective |  |
| POLS 3455 | Russian Foreign Policy | 4 SH | MUSC 3470 | War and Music | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH | PHIL 1130 | Ethics: East and West | 4 SH |
| Global Dynamics |  |  | POLS 1155 | Comparative Politics | 4 SH |
|  |  |  | POLS 1160 | International Relations | 4 SH |
| Complete three global dynamics courses from the following list. |  |  | POLS 3405 | International Political Economy | 4 SH |
| Note: POLS 1155 is a required course and may not be us |  |  | POLS 3407 | International Organizations | 4 SH |
| additional co | ynamics requirement. See department for |  | POLS 3408 | International Security | 4 SH |
| AFAM 3441 | Third World Political Relations | 4 SH | POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH | POLS 3420 | National Security, War, and Terrorism | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH | PO | Politics of Developing Nations |  |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH | POLS 4515 | Democracy in Comparative Politics | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH | POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH | POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |  |  | 4 |
| ANTH 2315 | Religion and Modernity | 4 SH |  |  |  |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH | POLS 4910 | Model United Nations |  |
| ARTH 3410 | Art of the African Diaspora | 4 SH |  |  | SH |
| COMM 2303 | Global and Intercultural | 4 SH |  |  |  |
|  | Communication |  |  |  |  |

## International Experiential Education

Complete at least one "international semester" via study abroad, international internship, international co-op, or two short-term programs.

## INTERNATIONAL AFFAIRS FOREIGN LANGUAGE REQUIREMENT

Note: Completing this requirement satisfies the language requirement for the BA degree.

## Elementary-Level Language

Complete two language courses at the elementary level.

## Intermediate-Level Language

Continue with your language through at least intermediate-level two (course number level 2102 or 2302).

## INTEGRATIVE COURSES

| Complete four courses from the following list: |  |
| :--- | :--- |
| ECON 3423 | Environmental Economics |
| or ECON 1290 | The Global Economy |
| ENVR 4515 | Sustainable Development |
| HIST 1211 | World History since 1945 |
| or HIST 2342 | Environmental History of North |
|  | America |
| INTL 4700 | Senior Capstone Seminar in |
|  | International Affairs |

## ENVIRONMENTAL STUDIES AND INTERNATIONAL

 AFFAIRS DUAL-MAJOR CREDIT REQUIREMENT Complete 88 semester hours in the major.
## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Studies and Philosophy

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENVIRONMENTAL STUDIES REQUIREMENTS

## Social Science Component

Complete the following four courses: Note: ECON 1116 is a recommended prerequisite for ECON 3423, and POLS 1150 is a recommended prerequisite for POLS 2395:

| ECON 3423 | Environmental Economics | 4 SH |
| :--- | :--- | :--- |
| HIST 2342 | Environmental History of North | 4 SH |
|  | $\quad$ America |  |
| POLS 2395 | Environmental Politics | 4 SH |
| SOCL 1246 | Environment and Sociology | 4 SH |

## Science Component

BIOLOGY
Complete the following course:
BIOL 1145 Environment and Humankind 4 SH
EARTH AND ENVIRONMENTAL SCIENCES
Complete one course from the following list:
ENVR $1104 \quad$ Natural Disasters and Catastrophes 4 SH
ENVR $1112 \quad 4$ SH
ENVR $1200 \quad$ Dynamic Earth 4 SH
ENVIRONMENT
Complete the following course:
ENVR 1101 Environmental Science 4 SH
QUANTITATIVE METHODS
Complete one course from the following list with corresponding
lab, if indicated:
ENVR $3300 \quad$ Geographic Information Systems 4 SH
with ENVR 3301 Lab for ENVR 33001 SH
MATH $2280 \quad$ Statistics and Software 4 SH

PHILOSOPHY REQUIREMENTS
Philosophy Required Courses
Complete the following four courses:
PHIL $1115 \quad$ Introduction to Logic 4 SH
or PHIL 1215 Symbolic Logic 4 SH
PHIL $1180 \quad 4$ SH
PHIL 2325 Ancient Philosophy 4 SH
PHIL $2330 \quad$ Modern Philosophy 4 SH

## Philosophy of Science/Environment

Complete one of the following courses:

| PHIL 3480 | Environmental Philosophy | 4 SH |
| :--- | :--- | :--- |
| PHIL 4510 | Philosophy of Science | 4 SH |

## Advanced Philosophy Elective

Complete one course from the following list:
PHIL 3435 Moral Philosophy 4 SH

PHIL $4500 \quad$ Theory of Knowledge 4 SH
PHIL $4505 \quad$ Metaphysics 4 SH
PHIL $4535 \quad$ Philosophy of Mind 4 SH

## Philosophy Seminar

Complete one philosophy seminar:

| PHIL 4901 | Topics in Philosophy Seminar | 4 SH |
| :--- | :--- | :--- |
| PHIL 4902 | Great Philosophers Seminar | 4 SH |

## Additional Electives

Complete two additional electives in philosophy.

## INTEGRATIVE COURSES

Complete the following two courses:

| ENVR 5210 | Environmental Planning | 4 SH |
| :--- | :--- | :--- |
| ENVR 5250 | Geology and Land-Use Planning | 4 SH |

ENVIRONMENTAL STUDIES AND PHILOSOPHY DUAL-MAJOR CREDIT REQUIREMENT
Complete 100 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Studies and Political Science

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## ENVIRONMENTAL STUDIES REQUIREMENTS

Social Science Component

## ECONOMICS

Complete the following two courses:
ECON $1116 \quad$ Principles of Microeconomics 4 SH
ECON 3423 Environmental Economics 4 SH
PHILOSOPHY
Complete one course from the following list:

| PHIL 1180 | Environmental Ethics | 4 SH |
| :--- | :--- | :--- |
| PHIL 3480 | Environmental Philosophy | 4 SH |
| SOCIOLOGY |  |  |
| Complete the  <br> SOCllowing course:  <br> SOCL Environment and Sociology | 4 SH |  |

## Science Component

Complete one course in each of the following four subject areas:
BIOLOGY
BIOL $1145 \quad$ Environment and Humankind 4 SH

| EARTH AND ENVIRONMENTAL SCIENCES |  |
| :--- | :--- | :--- |
| ENVR $1104 \quad$ Natural Disasters and Catastrophes | 4 SH |

ENVR 11124 SH

ENVR 1200 Dynamic Earth 4 SH
ENVIRONMENT
ENVR 1101 Environmental Science 4 SH
QUANTITATIVE METHODS
ENVR $3300 \quad$ Geographic Information Systems 4 SH
with ENVR 3301 Lab for ENVR 33001 SH
MATH $2280 \quad$ Statistics and Software 4 SH

## POLITICAL SCIENCE MAJOR REQUIREMENTS

## Political Science Requirements

Complete the following five courses:
POLS $1150 \quad 4$ SH
POLS $1155 \quad$ Comparative Politics 4 SH
POLS $1160 \quad$ International Relations 4 SH
POLS 2395 Environmental Politics 4 SH
POLS 2400 Quantitative Techniques 4 SH

## Political Theory

Complete one course from the following list:
POLS 2326 Premodern Political Thought 4 SH
POLS 2328 Modern Political Thought 4 SH
POLS $2330 \quad$ American Political Thought 4 SH
POLS 2332 Contemporary Political Thought 4 SH

## Political Science Restricted Electives

Complete two courses from the following list:
POLS $2334 \quad$ Bureaucracy and Government 4 SH
POLS $2390 \quad$ Science, Technology, and Public 4 SH
POLS $3307 \quad$ Public Policy and Administration 4 SH
POLS $3315 \quad$ Interest Groups and Public Policy 4 SH
POLS 3407 International Organizations 4 SH
POLS $3487 \quad$ Politics of Developing Nations 4 SH

## Political Science Elective

Complete one additional political science course.

## INTEGRATIVE COURSES

Complete the following two courses:
ENVR $5210 \quad$ Environmental Planning 4 SH

ENVR $5250 \quad$ Geology and Land-Use Planning 4 SH

## ENVIRONMENTAL STUDIES AND POLITICAL

SCIENCE DUAL-MAJOR CREDIT REQUIREMENT
Complete 76 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Geology and Environmental Studies

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Minor in Environmental Studies

## REQUIRED COURSE

Complete the following course:
ENVR 1101 Environmental Science
4 SH

## SCIENCE COURSE

Complete one course from the following list with corresponding lab, if indicated:

| BIOL 1145 | Environment and Humankind | 4 SH |
| :--- | :--- | :--- |
| CHEM 1211 | General Chemistry 1 | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| ENVR 1112 | Environmental Geology | 4 SH |
| ENVR 1200 | Dynamic Earth | 4 SH |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH |

## SOCIAL SCIENCE COURSES

Complete two courses from the following list:
ECON $1116 \quad$ Principles of Microeconomics 4 SH
PHIL $1180 \quad 4$ SH
POLS $1150 \quad$ American Government 4 SH
SOCL 1246 Environment and Sociology

## INTERDISCIPLINARY COURSES

Complete two courses from the following list:
ENVR 4504 Environmental Pollution
ENVR 5210 Environmental Planning
ENVR $5250 \quad$ Geology and Land-Use Planning
POLS 2395 Environmental Politics
GPA REQUIREMENT
2.000 GPA required in the minor

## GENERAL STUDIES PROGRAM

www.gsp.neu.edu

Lynn Dornink, MA
Associate Director

Office: 1 Meserve Hall
Phone: 617.373.3980
Fax: 617.373.7768

The General Studies Program (GSP) is a full-year program for entering freshmen, offering a unique learning environment where faculty, staff, and peer leaders provide guidance and support to ensure the students' academic success. The GSP satisfies first-year academic requirements and is geared to students' academic and career goals. Program benefits include a low student-advisor ratio, a two-semester critical-thinking seminar taught by GSP advisors, learning communities, a prescribed curriculum, small classes in specified courses, and a nationally certified peer tutoring program. Following the successful completion of the general studies year, students enter one of the University's six undergraduate colleges with sophomore status in a specified major. All majors have
defined entrance requirements; therefore, beginning in September, GSP advisors work closely with students to guide them and keep them aware of their intended majors' entrance requirements. GSP students should note that sophomore entrance into majors in the Bouvé College of Health Sciences, the School of Architecture, and the College of Engineering may require an additional semester to complete required freshman-level course work. In the case of the Bouvé College of Health Sciences, entrance is extremely competitive because of space limitations. There are also restrictions on specific majors. If the student's ultimate goal is to major in one of these areas, we strongly encourage the student to consider all enrollment options before deciding on the General Studies Program.

## Academic Progression Standards

GSP students must meet the following criteria to successfully transition to sophomore standing:

1. 2.000 GPA (entrance requirements to individual programs vary)
2. 28 semester hours of credit ( 32 recommended)
3. Successful completion of college/major transition requirements listed below.

## College of Arts and Sciences

- Requirements are major-specific. Students will be advised individually.


## College of Business Administration

- Cumulative GPA of 2.800 or higher.
- Successful completion of the following core courses with a cumulative GPA of 2.800 or higher:

| BUSN 1101 | Introduction to Business | 4 SH |
| :--- | :--- | :--- |
| ECON 1115 | Principles of Macroeconomics | 4 SH |
| ENGL 1111 | College Writing | 4 SH |

- MATH 1130 or higher with grade of B or higher (a grade of C or higher is required in MATH 1231). Students applying to the Bachelor of Science in International Business (BSIB) program will be advised individually.


## College of Computer and Information Science

- Requirements are major-specific. Students will be advised individually.


## College of Criminal Justice

- Cumulative GPA of 2.000 or higher.
- Minimum of one criminal justice course.


## Bouvé College of Health Sciences

- Requirements are major-specific. Entrance to some majors is extraordinarily competitive, and admission from GSP is rare. Students will be advised individually about requirements and space availability.


## College of Engineering

- Requirements are major-specific. Students will be advised individually.

Note: Major/college requirements are subject to change. GSP students work with the GSP advisors to receive the most up-todate and accurate information.

## Academic Probation

At the close of the first semester, GSP students with a cumulative GPA below 1.800 and/or semester hours below 12 are placed on academic probation.

## University Withdrawal, Low Scholastic Performance

At the close of a third academic semester, GSP students with a cumulative GPA below 2.000 and/or who have earned fewer than 12 semester hours for that term are withdrawn from the University for low scholastic performance.

## General Studies Program

## ARTS AND SCIENCES/UNDECLARED TRACK

A cumulative GPA of 2.000 or higher with a minimum of 28 semester hours of earned credit is required ( 32 semester hours of earned credit is recommended). Specific program requirements vary. Consult your advisor for more information.

## English Requirement

Complete the following two courses:
ENGL 1110 Introductory Writing 4 SH
ENGL $1111 \quad$ College Writing

## 4 SH

## Mathematics Requirement

Select math course(s) applicable to your major program of study.
Calculus is required for most science programs; algebra may be sufficient for nonscience programs. Consult your advisor for more information.

ALGEBRA
MATH 1215
Mathematical Thinking
4 SH
CALCULUS
MATH 1120
Precalculus
4 SH
MATH $1231 \quad$ Calculus for Business and Economics 4 SH
MATH 1241
Calculus
4 SH
MATH 1242
Calculus 2
4 SH
MATH 1251
Calculus and Differential Equations for Biology 1
MATH $1252 \quad$ Calculus and Differential Equations
for Biology 2
Strategic Thinking and Learning
Complete the following two courses:
GENS 1101 Strategic Thinking and Learning
Seminar 1
GENS 1102
Strategic Thinking and Learning 1 SH

## NU Core Courses

Complete four major-appropriate NU Core courses. Consult your advisor for a list of approved courses.

## CRIMINAL JUSTICE TRACK

A cumulative GPA of 2.000 or higher with a minimum of 28 semester hours of earned credit is required ( 32 semester hours of earned credit is recommended). Consult your advisor for more information.

## English Requirement

Complete the following two courses:

| ENGL 1110 | Introductory Writing | 4 SH |
| :--- | :--- | :--- |
| with ENGL 1111 | College Writing | 4 SH |

## Mathematics Requirement

A minimum of MATH 1215 is required. Students placed into MATH 1110 must complete both MATH 1110 and MATH 1215.
MATH $1215 \quad$ Mathematical Thinking 4 SH
or MATH 1110 College Algebra 4 SH
and MATH 1215 Mathematical Thinking 4 SH

## Strategic Thinking and Learning

Complete the following two courses:
GENS $1101 \quad$ Strategic Thinking and Learning 1 SH Seminar 1
GENS $1102 \quad$ Strategic Thinking and Learning 1 SH
Seminar 2

## Criminal Justice

Complete the following two courses:
CRIM $1100 \quad$ Introduction to Criminal Justice 4 SH
CRIM $1200 \quad$ Ethics, Values, and Diversity 4 SH

## NU Core Courses or Arts and Sciences Courses Approved for Criminal Justice

Complete two courses from the following list or from the NU Core arts/humanities level 1 domain, as described on page 26. CS $1100 \quad$ Computer Science 4 SH and Its Applications
PSYC $1101 \quad$ Foundations of Psychology 4 SH
SOCL 1101 Introduction to Sociology 4 SH

## BUSINESS TRACK

A cumulative GPA of 2.800 or higher with a minimum of 28 semester hours of earned credit is required ( 32 semester hours of earned credit is recommended). Students applying to the Bachelor of Science in International Business (BSIB) program will be advised individually. For all business programs, specified courses and GPA are required. Consult your advisor for more information.

A cumulative GPA of 2.800 or higher is required in
BUSN 1101, ECON 1115, and ENGL 1111.

## English Requirement

Complete the following two courses:
ENGL $1110 \quad$ Introductory Writing 4 SH
with ENGL 1111 College Writing 4 SH

Mathematics Requirement
Complete one of the following courses. Students taking
MATH 1130 must earn a grade of B or better; students taking
MATH 1231 must earn a grade of C or better:
MATH $1130 \quad$ College Math for Business and 4 SH

MATH $1231 \quad$ Calculus for Business and Economics 4 SH
Economics Course
Complete the following course:
ECON 1115 Principles of Macroeconomics

## Strategic Thinking and Learning

Complete the following two courses:

| GENS 1101 | Strategic Thinking and Learning <br> Seminar 1 | 1 SH |
| :--- | :---: | :---: |
| GENS 1102 | Strategic Thinking and Learning <br> Seminar 2 | 1 SH |

## Management Course

Complete the following course:
BUSN 1101 Introduction to Business
4 SH

## NU Core Courses

ARTS/HUMANITIES LEVEL 1
Complete one course from the NU Core arts/humanities level 1 domain, as described on page 26.

## SCIENCE/TECHNOLOGY LEVEL 1

Complete one course from the NU Core science/technology level 1 domain, as described on page 26.

## HEALTH SCIENCES/TECHNOLOGY TRACK

A minimum of 28 semester hours of earned credit is required (32 semester hours of earned credit is recommended). Specific program requirements vary or are restricted. Consult your advisor for more information.

## English Requirement

Complete the following two courses:
ENGL $1110 \quad$ Introductory Writing 4 SH
with ENGL 1111 College Writing 4 SH
Mathematics Requirement
Select math course(s) applicable to your major program of study.
Calculus is required for most science programs; algebra is
sufficient for only a few specific programs. Consult your advisor for more information.
CALCULUS

| MATH 1120 | Precalculus | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers | 6 SH |


| MATH 1341 | Calculus 1 for Science and <br> Engineering <br> Calculus 2 for Engineering <br> Technology | 4 SH |
| :--- | :--- | :---: |
| MATH 1343 | 4 SH |  |
| ALGEBRA | Mathematical Thinking | 4 SH |
| MATH 1215 <br> Strategic Thinking and Learning <br> Complete the following two courses: <br> GENS 1101 <br> Strategic Thinking and Learning <br> Seminar 1 <br> GENS 1102 | Strategic Thinking and Learning <br> Seminar 2 | 1 SH |

## Science Requirement

Complete two science courses with corresponding lab(s) applicable to your major program of study. Consult your advisor for more information.

BIOLOGY

| BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| BIOL 1117 | Integrated Anatomy and Physiology 1 | 4 SH |
| with BIOL 1118 | Lab for BIOL 1117 | 1 SH |
| BIOL 1119 | Integrated Anatomy and Physiology 2 | 4 SH |
| with BIOL 1120 | Lab for BIOL 1119 | 1 SH |

CHEMISTRY
CHEM 1101 General Chemistry for Health 4 SH

Sciences
with CHEM 1102 Lab for CHEM 11011 SH
CHEM $1104 \quad$ Organic Chemistry for Health 4 SH Sciences
with CHEM 1105 Lab for CHEM 11041 SH
CHEM 1151 General Chemistry for Engineers 4 SH
CHEM 1211 General Chemistry 1 4 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH

| COMPUTER AND INFORMATION SCIENCE |  |  |
| :--- | :--- | :--- |
| CS 1800 | Discrete Structures | 4 SH |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |

## PHYSICS

PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1151 \quad$ Physics for Engineering $1 \quad 4$ SH
with PHYS 1152 Lab for PHYS $1151 \quad 1$ SH
PHYS 1161 Physics 1 SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
PSYCHOLOGY:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## NU Core Courses or Major-Specific Courses

Complete two NU Core courses or major-specific courses applicable to your major program of study. Consult your advisor for a list of approved courses.

```
HISTORY
www.history.neu.edu
Laura L. Frader, PhD
Professor and Chair
```

Office: 249 Meserve Hall
Phone: 617.373.2660
Fax: 617.373.2661
E-mail contact: Jennifer Mocarski, Administrative Assistant, j.mocarski@neu.edu

History is the study of the causes and consequences of changes in human events across time. Like other liberal arts disciplines, historical study trains students to think critically by reading, writing about, and discussing the human experience. History stimulates a deeper understanding of today's cultures by considering them in a global context. The goal of the study of history is to help students develop powers of judgment and expression that will propel them to future leadership positions in education, the professions, government and public service, international organizations, communications, and business.

The Department of History offers a broad-based Bachelor of Arts major and two Bachelor of Science options. One BS option emphasizes training in the social sciences and includes requirements in research methods as well as a minor in fields such as English, economics, political science, sociology, cinema studies, East Asian studies, or women's studies. The other BS option seeks to prepare students for public history fields such as museum administration, archival management, or historic preservation. The Department of History participates in numerous interdisciplinary programs, including East Asian studies; cinema studies; environmental studies; international affairs; Jewish studies; Latino/a, Latin American, and Caribbean studies; and women's studies.

All history majors take introductory courses in European, world, American, Middle Eastern, or East Asian history; an introductory course in historical methods; as well as advanced courses in a range of historical themes, periods, and regions. Students focus their studies by choosing a cluster of four courses in a particular geographical area, time period, or theme. The program emphasizes undergraduate research in the major and trains students to conduct research in archives and primary sources and to write research papers. Honors study is strongly encouraged for eligible students, as is study abroad. Advanced undergraduates have the opportunity to participate in individual directed study with members of the faculty on topics of mutual interest.

Cooperative education placements, fieldwork, internships, and other experiential learning activities are also available.
Undergraduates who plan to teach in public schools may combine history with education courses that can lead to state certification in Massachusetts.

The Department of History offers qualified undergraduates the opportunity to pursue a combined BA/MA or BS/MA degree in five years, upon the approval of the department. Students with a minimum 3.330 cumulative GPA and minimum 3.500 GPA in required history courses may apply for admission to the five-year MA program in history.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' ability to meet the department's criteria for admission and the availability of space in the program.

## Academic Progression Standards

Same as college standards.

## BA in History

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## HISTORY MAJOR REQUIREMENTS

## Introductory History

Complete the following course:
HIST $1201 \quad$ The History Colloquium 4 SH
and two additional courses from the following list:
AFAM 1140 Introduction to African-American 4 SH History
ASNS $1150 \quad$ East Asian Studies 4 SH
HIST $1110 \quad$ Introduction to World History 4 SH
HIST $1120 \quad$ Introduction to Public History 4 SH
HIST $1130 \quad$ Introduction to American History 4 SH
HIST $1170 \quad$ Introduction to European History 4 SH
HIST $1180 \quad 4$ SH
HIST 1185 Introduction to Middle Eastern 4 SH

HIST 1187 Introduction to Latin American 4 SH

HIST $1189 \quad$ Introduction to South Asian History 4 SH
WMNS $1103 \quad 4$ SH
History Seminar and Historical Writing
Complete the following two courses concurrently:
HIST 2301 The History Seminar 4 SH
with HIST 2302 Historical Writing 1 SH

## HISTORY CLUSTER

In conjunction with their history advisor, history majors must define a history cluster by the first semester of their junior year of study. A cluster comprises four history courses with no more than two courses in the 1200-1299 range.

## ADDITIONAL HISTORY REQUIREMENTS

## Pre-1800 Course

Complete one course from the following list. This course may count toward the history cluster or history elective:
AFRS 2390 Africa and the World in Early Times 4 SH
or HIST 2390 Africa and the World in Early Times 4 SH
AFRS 2391 Modern African Civilization 4 SH
AFRS 2392 African Diaspora 4 SH
HIST $1210 \quad$ Atlantic Connection 4 SH
HIST $1222 \quad$ History of Science and Technology 4 SH
HIST $1250 \quad 4$ SH
HIST $1252 \quad$ Japanese Literature and Culture 4 SH
HIST $1270 \quad$ Ancient Greece 4 SH
HIST $1271 \quad$ Ancient Rome 4 SH
HIST $1272 \quad$ The Invention of Europe 500-1500 4 SH
HIST $1273 \quad$ Belief in Magic and Science in Europe 4 SH
HIST 1285 Introduction to Russian Civilization 4 SH
HIST $1507 \quad$ Chinese Civilization in Her Eyes 4 SH
HIST $2310 \quad$ Spread of Buddhism 4 SH
HIST $2330 \quad$ Colonial and Revolutionary America 4 SH
HIST $2370 \quad$ Renaissance to Enlightenment 4 SH
HIST $2375 \quad$ Culture and Identity in Early Modern 4 SH
England
HIST 2393 Islam and Empires 4 SH
HIST 3411 Environment in the Age of Discovery 4 SH
HIST $3475 \quad$ The Culture of Europe 4 SH

## Capstone or Project

Complete one of the following courses:
HIST $4701 \quad$ Capstone Seminar 4 SH
HIST $4911 \quad$ Senior Project 1 SH
HIST 4912 Senior Project 2 SH

## INTERMEDIATE/ADVANCED HISTORY COURSE REQUIREMENT

A minimum of three courses from the above requirements must be at a course level of HIST 2303 or higher. These courses may count toward the history cluster.

## EXPERIENTIAL EDUCATION REQUIREMENT

The following course:
HIST 2301 The History Seminar 4 SH
fulfills the University's experiential education requirement.

## HISTORY MAJOR CREDIT REQUIREMENT

Complete 41 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in History

## NU CORE REQUIREMENTS

See page 26 for requirement list.
HISTORY MAJOR REQUIREMENTS
Introductory History
Complete the following course:
HIST $1201 \quad$ The History Colloquium 4 SH
and two additional courses from the following list:
AFAM 1140 Introduction to African-American 4 SH History
ASNS $1150 \quad$ East Asian Studies 4 SH
HIST $1110 \quad$ Introduction to World History 4 SH
HIST $1120 \quad$ Introduction to Public History 4 SH
HIST $1130 \quad$ Introduction to American History 4 SH
HIST $1170 \quad$ Introduction to European History 4 SH
HIST $1180 \quad 4$ SH

HIST $1185 \quad$ Introduction to Middle Eastern 4 SH History
HIST 1187 Introduction to Latin American 4 SH History
HIST $1189 \quad$ Introduction to South Asian History 4 SH
WMNS 1103 Women’s Studies 4 SH

## History Seminar and Historical Writing

Complete the following two courses concurrently:

| HIST 2301 | The History Seminar | 4 SH |
| :--- | :--- | :--- |
| with HIST 2302 | Historical Writing | 1 SH |

## HISTORY CLUSTER

In conjunction with their history advisor, history majors must define a history cluster by the first semester of their junior year of study. A cluster comprises four history courses with no more than two courses in the 1200-1299 range.

## ADDITIONAL HISTORY REQUIREMENTS

## Pre-1800 Course

Complete one course from the following list. This course may count toward the history cluster:

| AFRS 2390 | Africa and the World in Early Times | 4 SH |
| :--- | :--- | :--- |
| or HIST 2390 | Africa and the World in Early Times | 4 SH |
| AFRS 2391 | Modern African Civilization | 4 SH |
| AFRS 2392 | African Diaspora | 4 SH |
| HIST 1210 | Atlantic Connection | 4 SH |
| HIST 1222 | History of Science and Technology | 4 SH |
| HIST 1250 | Emergence of East Asia | 4 SH |
| HIST 1252 | Japanese Literature and Culture | 4 SH |
| HIST 1270 | Ancient Greece | 4 SH |
| HIST 1271 | Ancient Rome | 4 SH |


| HIST 1272 | The Invention of Europe 500-1500 | 4 SH |
| :--- | :--- | :--- |
| HIST 1273 | Belief in Magic and Science in Europe | 4 SH |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH |
| HIST 2310 | Spread of Buddhism | 4 SH |
| HIST 2330 | Colonial and Revolutionary America | 4 SH |
| HIST 2370 | Renaissance to Enlightenment | 4 SH |
| HIST 2375 | Culture and Identity in Early Modern | 4 SH |
|  | $\quad$ England |  |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 3411 | Environment in the Age of Discovery | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH |

## Research Methods

Complete one course from the following list:

| CS 1100 | Computer Science <br> and Its Applications | 4 SH |
| :--- | :--- | :--- |
| ECON 2350 | Statistics | 4 SH |
| ENVR 5260 | Geographical Information Systems | 4 SH |
| MATH 1180 | Statistical Thinking | 4 SH |
| MATH 2280 | Statistics and Software | 4 SH |
| PHIL 1215 | Symbolic Logic | 4 SH |
| POLS 2400 | Quantitative Techniques | 4 SH |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| SOCL 2320 | Statistical Analysis in Sociology | 4 SH |
| Capstone or Project |  |  |
| Complete one of the following courses: |  |  |
| HIST 4701 | Capstone Seminar | 4 SH |
| HIST 4911 | Senior Project 1 | 4 SH |
| HIST 4912 | Senior Project 2 | 4 SH |

Note: Public history concentrators satisfy this requirement within the concentration with HIST 4903 and HIST 4904.

## MINOR OUTSIDE HISTORY

Students must complete a minor in any field outside history.

## OPTIONAL PUBLIC HISTORY CONCENTRATION

## Public History Courses

Complete the following three courses (HIST 1120 is a prerequisite for HIST 4903 and HIST 4904):
HIST $1120 \quad$ Introduction to Public History 4 SH
HIST $4903 \quad$ Fieldwork in History 1 SH
HIST $4904 \quad$ Fieldwork in History 2 SH

## Graduate Public History Course

Complete one graduate-level course in public history. See history faculty advisor for an approved list.

## EXPERIENTIAL EDUCATION REQUIREMENT

The following course:
HIST 2301 The History Seminar 4 SH
fulfills the University's experiential education requirement.

## INTERMEDIATE/ADVANCED HISTORY COURSE REQUIREMENT

A minimum of three courses from the above requirements must be at a course level of HIST 2303 or higher. These courses may count toward the history cluster.

## HISTORY MAJOR CREDIT REQUIREMENT

Complete 45 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA/MA in History

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## HISTORY MAJOR REQUIREMENTS

## Introductory History

| Complete the following course: |  |  |
| :---: | :---: | :---: |
| HIST 1201 and two addit | The History Colloquium courses from the following list: | 4 SH |
| AFAM 1140 | Introduction to African-American History | 4 SH |
| ASNS 1150 | East Asian Studies | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1120 | Introduction to Public History | 4 SH |
| HIST 1130 | Introduction to American History | 4 SH |
| HIST 1170 | Introduction to European History | 4 SH |
| HIST 1180 | African History | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1189 | Introduction to South Asian History | 4 SH |
| WMNS 1103 | Women's Studies | 4 SH |

## History Seminar and Historical Writing

Complete the following two courses concurrently:
HIST 2301 The History Seminar 4 SH
with HIST 2302 Historical Writing 1 SH

## HISTORY CLUSTER

In conjunction with their history advisor, history majors must define a history cluster by the first semester of their junior year of study. A cluster comprises four history courses with no more than two courses in the 1200-1299 range.

## ADDITIONAL HISTORY REQUIREMENTS

## Pre-1800 Course

Complete one course from the following list. This course may count toward the history cluster or history elective:
AFRS 2390 Africa and the World in Early Times 4 SH
or HIST 2390 Africa and the World in Early Times 4 SH
AFRS 2391 Modern African Civilization 4 SH
AFRS 2392 African Diaspora 4 SH
HIST $1210 \quad 4$ SH
HIST $1222 \quad$ History of Science and Technology 4 SH
HIST $1250 \quad 4$ SH
HIST 1252 Japanese Literature and Culture 4 SH
HIST $1270 \quad$ Ancient Greece 4 SH
HIST $1271 \quad$ Ancient Rome 4 SH
HIST $1272 \quad$ The Invention of Europe 500-1500 4 SH
HIST $1273 \quad$ Belief in Magic and Science in Europe 4 SH
HIST 1285 Introduction to Russian Civilization 4 SH
HIST $1507 \quad$ Chinese Civilization in Her Eyes 4 SH
HIST $2310 \quad$ Spread of Buddhism 4 SH
HIST $2330 \quad$ Colonial and Revolutionary America 4 SH
HIST $2370 \quad$ Renaissance to Enlightenment 4 SH
HIST $2375 \quad$ Culture and Identity in Early Modern 4 SH
England
HIST 2393 Islam and Empires 4 SH
HIST 3411 Environment in the Age of Discovery 4 SH
HIST $3475 \quad$ The Culture of Europe 4 SH
Capstone or Project
Complete one of the following courses:
HIST $4701 \quad$ Capstone Seminar 4 SH
HIST $4911 \quad$ Senior Project 1 SH
HIST $4912 \quad$ Senior Project 2 SH

## INTERMEDIATE/ADVANCED HISTORY COURSE REQUIREMENT

A minimum of three courses from the above requirements must be at a course level of HIST 2303 or higher. These courses may count toward the history cluster.

## EXPERIENTIAL EDUCATION REQUIREMENT

The following course:
HIST $2301 \quad$ The History Seminar 4 SH
fulfills the University's experiential education requirement.

## GRADUATE-LEVEL HISTORY REQUIREMENTS

Required Course
Complete the following course:
HIST $5101 \quad$ Theory and Methodology 1
4 SH

## Graduate Electives

Complete seven graduate electives.
GRADUATE GPA REQUIREMENT
Minimum GPA of 3.000 required in all graduate HIST courses

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

160 total semester hours required
Minimum 2.000 GPA required for undergraduate courses
Minimum 3.000 GPA required for graduate courses

## BS/MA in History

NU CORE REQUIREMENTS
See page 26 for requirement list.
HISTORY MAJOR REQUIREMENTS
Introductory History
Complete the following course:
HIST 1201 The History Colloquium 4 SH
and two additional courses from the following list:
AFAM 1140 Introduction to African-American 4 SH

ASNS $1150 \quad$ East Asian Studies 4 SH
HIST $1110 \quad$ Introduction to World History 4 SH
HIST $1120 \quad$ Introduction to Public History 4 SH
HIST $1130 \quad$ Introduction to American History 4 SH
HIST $1170 \quad$ Introduction to European History 4 SH
HIST $1180 \quad$ African History 4 SH

HIST 1185 Introduction to Middle Eastern 4 SH

HIST 1187 Introduction to Latin American 4 SH History
HIST $1189 \quad$ Introduction to South Asian History 4 SH
WMNS $1103 \quad 4$ SH

## History Seminar and Historical Writing

Complete the following two courses concurrently:

| HIST 2301 | The History Seminar | 4 SH |
| :--- | :--- | :--- |
| with HIST 2302 | Historical Writing | 1 SH |

## HISTORY CLUSTER

In conjunction with their history advisor, history majors must define a history cluster by the first semester of their junior year of study. A cluster comprises four history courses with no more than two courses in the HIST 1200-1299 range.

## ADDITIONAL HISTORY REQUIREMENTS FOR BS STUDENTS

## Pre-1800 Course

Complete one course from the following list. This course may count toward the history cluster:

| AFRS 2390 | Africa and the World in Early Times | 4 SH |
| :--- | :--- | :--- |
| or HIST 2390 | Africa and the World in Early Times | 4 SH |
| AFRS 2391 | Modern African Civilization | 4 SH |
| AFRS 2392 | African Diaspora | 4 SH |
| HIST 1210 | Atlantic Connection | 4 SH |
| HIST 1222 | History of Science and Technology | 4 SH |
| HIST 1250 | Emergence of East Asia | 4 SH |
| HIST 1252 | Japanese Literature and Culture | 4 SH |


| HIST 1270 | Ancient Greece | 4 SH |
| :--- | :--- | :--- |
| HIST 1271 | Ancient Rome | 4 SH |
| HIST 1272 | The Invention of Europe 500-1500 | 4 SH |
| HIST 1273 | Belief in Magic and Science in Europe | 4 SH |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH |
| HIST 2310 | Spread of Buddhism | 4 SH |
| HIST 2330 | Colonial and Revolutionary America | 4 SH |
| HIST 2370 | Renaissance to Enlightenment | 4 SH |
| HIST 2375 | Culture and Identity in Early Modern | 4 SH |
|  | $\quad$ England |  |
| HIST 2393 | Islam and Empires |  |
| HIST 3411 | Environment in the Age of Discovery | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH |

## Research Methods

Complete one course from the following list:
CS $1100 \quad$ Computer Science

| CS 1100 | Computer Science <br> and Its Applications |
| :---: | :---: |

ECON $2350 \quad$ Statistics 4 SH
ENVR $5260 \quad$ Geographical Information Systems 4 SH
MATH $1180 \quad$ Statistical Thinking 4 SH
MATH $2280 \quad$ Statistics and Software 4 SH
PHIL 1215 Symbolic Logic 4 SH
POLS $2400 \quad$ Quantitative Techniques 4 SH
PSYC $2320 \quad$ Statistics in Psychological Research 4 SH
SOCL $2320 \quad$ Statistical Analysis in Sociology 4 SH

## Capstone or Project

Complete one of the following courses:

| HIST 4701 | Capstone Seminar | 4 SH |
| :--- | :--- | :--- |
| HIST 4911 | Senior Project 1 | 4 SH |
| HIST 4912 | Senior Project 2 | 4 SH |

Note: Public history concentrators satisfy this requirement within the concentration with HIST 4903 and HIST 4904.

## MINOR OUTSIDE HISTORY

Students must complete a minor in any field outside history.

## OPTIONAL PUBLIC HISTORY CONCENTRATION

Public History Courses
Complete the following three courses (HIST 1120 is a prerequisite for HIST 4903 and 4904):
HIST $1120 \quad$ Introduction to Public History 4 SH
HIST $4903 \quad$ Fieldwork in History $1 \quad 4$ SH
HIST 4904 Fieldwork in History 24 SH

## Graduate Public History Course

Complete one graduate-level course in public history. See history faculty advisor for an approved list.

## EXPERIENTIAL EDUCATION REQUIREMENT

The following course:
HIST $2301 \quad$ The History Seminar 4 SH
fulfills the University's experiential education requirement.

## INTERMEDIATE/ADVANCED HISTORY COURSE REQUIREMENT

A minimum of three courses from the above requirements must be at a course level of HIST 2303 or higher. These courses may count toward the history cluster.

## GRADUATE-LEVEL HISTORY REQUIREMENTS

Required Course
Complete the following course:
HIST $5101 \quad$ Theory and Methodology 1
4 SH

## Graduate Electives

Complete seven graduate electives. One fieldwork course is recommended.
FIELDWORK
HIST $8410 \quad$ Fieldwork in History 1 SH
HIST $8411 \quad$ Fieldwork in History 2 SH

HIST $8412 \quad$ Fieldwork in History 3 SH

## GRADUATE GPA REQUIREMENT

Minimum 3.000 GPA required in all graduate HIST courses

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

160 total semester hours required
Minimum 2.000 GPA required in undergraduate courses
Minimum 3.000 GPA required in graduate courses

## BA in Environmental Studies and History

See page 120.

## Minor in History

## REQUIRED COURSES

Complete four history courses, of which at least two must be taken at Northeastern and must be at the 1200 -level or higher (HIST 1200 to HIST 5999). History minors must have a total of 16 semester hours in history.

GPA REQUIREMENT
2.000 GPA required in the minor

## HUMAN SERVICES

www.humanservices.neu.edul

Lori Gardinier, PhD
Assistant Academic Specialist, Director
of the Human Services Program, and Head Advisor

Office: 587 Holmes Hall
Phone: 617.373.2624
Fax: 617.373.8088
E-mail contact: Lori Gardinier, Assistant Academic Specialist and Director, l.gardinier@neu.edu

The human services program is an interdisciplinary major within the College of Arts and Sciences that includes courses in human services, psychology, sociology, political science, and other related fields. The mission of the human services program is to provide students with the theoretical and skill-based background necessary to practice in macro-, mezzo-, and microarenas such as political advocacy, community development, and direct service. Students take basic foundation and skills courses and complete an intensive fieldwork internship in community agencies and/or government organizations. The major may lead to careers in many diverse areas of the helping professions or to graduate education.

Students who major in human services select specializations in areas that they wish to pursue further. Students can pursue positions in both public and private agencies, including social service and welfare agencies, mental health settings, programs for youth, halfway houses, rape crisis and domestic violence centers, drug treatment institutions, and criminal justice settings. Students can work in a number of capacities as counselors, community organizers, administrators in human services agencies, and as fund-raisers for social programs. Students in the major have special opportunities to participate in the Human Services Organization, the student-led club.

## Prepared Specializations

Administration and Policy; Applied Behavior Analysis; Counseling Psychology; Deaf Studies; Family and Children Services; and Social Justice, Identity, and Religion.

## Transferring to the Major

Acceptance into the major is based on completion of the internal transfer application, the program's criteria for admission including the minimum GPA requirement, and a meeting with an advisor.

## Academic Progression Standards

After four semesters, students must meet the minimum GPA, have earned at least 64 semester hours, and should have completed the following courses:
SOCL 1101 Introduction to Sociology 4 SH
HUSV 1101 Human Services Professions 4 SH
and any two of the following courses:
PSYC 1101 Foundations of Psychology 4 SH
HUSV $2300 \quad$ Counseling in Human Services 4 SH
an approved policy course
an approved research course
an approved organizations course
and at least one specialization course (see advisor).
In order to take the following course:
HUSV $4994 \quad$ Human Services Internship 6 SH
students must have permission from the Internship Coordinator at least one semester prior to the semester they wish to take the internship course. Internship should be taken either the spring semester of a student's junior year or the fall semester of a student's senior year.

## BA in Human Services

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## HUMAN SERVICES MAJOR REQUIREMENTS

## Human Services Overview

Complete the following two courses:
HUSV 11014 SH
HUSV $2300 \quad$ Counseling in Human Services 4 SH

## Sociology

Complete the following course:
SOCL 1101 Introduction to Sociology 4 SH

## Research

Complete one of the following courses:
PSYC $2300 \quad$ Research in Psychology 4 SH
SOCL 2321 Research Methods in Sociology 4 SH
SOCL 2324 Human Services Research and 4 SH

## Policy

Complete one of the following courses:
PHTH $2350 \quad$ Community and Public Health 4 SH
POLS $2345 \quad 4$ SH
POLS $2385 \quad$ U.S. Health and Welfare Policy 4 SH
POLS $3307 \quad$ Public Policy and Administration 4 SH
SOCL 3401 Social Policy and Intervention 4 SH
Organization
Complete one of the following courses:
POLS $2334 \quad$ Bureaucracy and Government 4 SH

SOCL 3408 Sociology of Organizations 4 SH
SOCL $3440 \quad$ Sociology of Human Service 4 SH

Psychology
Complete the following course:
PSYC 1101 Foundations of Psychology
4 SH

| Human Services and Diverse Populations |  |  |
| :---: | :---: | :---: |
| Complete one of the following courses: |  |  |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| HUSV 4866 | Intercultural Studies through Human Services | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |
| Human Services Elective |  |  |
| Complete one course from the following list: |  |  |
| HUSV 2320 | Techniques in Individual and Group Counseling in Human Services | 4 SH |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services | 4 SH |
| HUSV 3520 | Child Intervention and Treatment | 4 SH |
| HUSV 3540 | Services and Treatments for Chemical Dependencies | 4 SH |
| HUSV 3550 | Social Policy, Advocacy, and Activism | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 SH |
| HUSV 3580 | Rape Crisis Training: Techniques in Counseling | 4 SH |
| HUSV 4620 | Civic Engagement, Leadership, and Ethics in Practice 1 | 4 SH |
| HUSV 4621 | Civic Engagement, Leadership, and Ethics in Practice 2 | 4 SH |
| HUSV 4866 | Intercultural Studies through Human Services | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| Senior Seminar and Internship |  |  |
| Complete the following two courses: |  |  |
| HUSV 4700 | Senior Seminar in Human Services | 4 SH |
| HUSV 4994 | Human Services Internship | 6 SH |
| HUMAN SERVICES SPECIALIZATION FOR BA DEGREE |  |  |
|  |  |  |
| Complete one of the specializations listed below. |  |  |
| Specialization in Deaf Studies |  |  |
| Complete the following five courses (AMSL 1101 and |  |  |
| AMSL 1102 are normally taken as part of the BA core): |  |  |
| AMSL 1101 | Elementary ASL 1 | 4 SH |
| AMSL 1102 | Elementary ASL 2 | 4 SH |
| AMSL 2101 | Intermediate ASL 1 | 4 SH |
| AMSL 2102 | Intermediate ASL 2 | 4 SH |
| DEAF 1500 | Deaf People in Society | 4 SH |

## Specialization in Family and Children's Services

Complete the following two required courses and one elective:
REQUIREMENTS

| HUSV 3520 | Child Intervention and Treatment | 4 SH |
| :--- | :--- | :--- |
| SOCL 1255 | Sociology of the Family | 4 SH |
| ELECTIVES |  |  |
| CAEP 3480 | Counseling Theories and Practice | 4 SH |
| CRIM 4100 | Juvenile Law | 4 SH |
| EDUC 1113 | Human Development and Learning | 4 SH |
| PSYC 2352 | Childhood Mental Illness | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |
| SOCL 1256 | Violence in the Family | 4 SH |
| SOCL 3437 | Children and Youth in Contemporary | 4 SH |
|  | Society |  |

## Specialization in Psychology/Counseling Psychology

Complete the following two required courses and one elective:

## REQUIREMENTS

| CAEP 3485 | Mental Health and Counseling | 4 SH |
| :---: | :---: | :---: |
| PSYC 3406 | Abnormal Psychology | 4 SH |
| ELECTIVES |  |  |
| CAEP 3480 | Counseling Theories and Practice | 4 SH |
| CAEP 4502 | Health Counseling | 3 SH |
| COMM 3230 | Interpersonal Communication | 4 SH |
| HUSV 2320 | Techniques in Individual and Group Counseling in Human Services | 4 SH |
| HUSV 3540 | Services and Treatments for Chemical Dependencies | 4 SH |
| HUSV 3580 | Rape Crisis Training: Techniques in Counseling | 4 SH |
| NRSG 1205 | Wellness | 4 SH |
| PHIL 1165 | Moral and Social Problems in Health Care | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |

PSYC 3404 Developmental Psychology 4 SH
Specialization in Administration and Policy
Complete the following two required courses and one elective:

## REQUIREMENTS

| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| :--- | :--- | :--- |
| POLS 3307 | Public Policy and Administration | 4 SH |
| ELECTIVES |  |  |
| AFAM 1270 | Economic Status of Ethnic Minorities | 4 SH |
| ECON 1240 | Economics of Crime | 4 SH |
| HUSV 3550 | Social Policy, Advocacy, and | 4 SH |
|  | $\quad$ Activism |  |
| HUSV 3570 | Strategic Philanthropy and Nonprofit | 4 SH |
|  | Management |  |
| SOCL 1240 | Sociology of Prejudice and Violence | 4 SH |
| SOCL 1260 | Gender in a Changing Society | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |


| Specialization in Social Justice, Identity, and Religion |  |  |
| :---: | :---: | :---: |
| Complete the following three required courses: |  |  |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services | 4 SH |
| HUSV 3550 | Social Policy, Advocacy, and Activism | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| Specialization in Applied Behavior Analysis |  |  |
| Complete the following three required courses: |  |  |
| PSYC 2358 | Behavior Therapies | SH |
| PSYC 3450 | Learning and Motivation | H |
| PSYC 4654 | Seminar in Behavioral Modification | 4 S |

## Independent Specialization

With approval from the program director, an independent specialization, consisting of three courses, may be defined in consultation with your advisor.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## HUMAN SERVICES MAJOR CREDIT REQUIREMENT

Complete 58 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Human Services

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## HUMAN SERVICES MAJOR REQUIREMENTS

## Human Services Overview

Complete the following two courses:

| HUSV 1101 | Human Services Professions | 4 SH |
| :--- | :--- | :--- |
| HUSV 2300 | Counseling in Human Services | 4 SH |

## Sociology

Complete the following course:
SOCL 1101 Introduction to Sociology 4 SH

## Research

Complete one of the following courses:
PSYC $2300 \quad$ Research in Psychology 4 SH
SOCL $2321 \quad$ Research Methods in Sociology 4 SH
SOCL 2324 Human Services Research and 4 SH

Policy
Complete one of the following courses:

| PHTH 2350 | Community and Public Health | 4 SH |
| :--- | :--- | :--- |
| POLS 2345 | Urban Policies and Politics | 4 SH |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| SOCL 3401 | Social Policy and Intervention | 4 SH |
| Organization |  |  |

Complete one of the following courses:
POLS $2334 \quad$ Bureaucracy and Government 4 SH
Organizations
SOCL $3408 \quad$ Sociology of Organizations 4 SH
SOCL $3440 \quad$ Sociology of Human Service 4 SH

Psychology
Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH
Human Services and Diverse Populations
Complete one of the following courses:

| HUSV 2350 | Ethnic Relations, Cultural Identity, <br> and Human Services | 4 SH |
| :--- | :--- | :--- |
| HUSV 3560 | Religion, Human Services, and <br> Diversity in the United States | 4 SH |
| HUSV 4866 | Intercultural Studies through Human <br> Services | 4 SH |
| HUSV 4920 | International Human Services <br> SOCL 1270 Race and Ethnic Relations | 4 SH |
|  | R | 4 SH |

Human Services Elective

| Complete one course from the following list: |  |  |
| :---: | :---: | :---: |
| HUSV 2320 | Techniques in Individual and Group Counseling in Human Services | 4 SH |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services | 4 SH |
| HUSV 3520 | Child Intervention and Treatment | 4 SH |
| HUSV 3540 | Services and Treatments for Chemical Dependencies | 4 SH |
| HUSV 3550 | Social Policy, Advocacy, and Activism | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 SH |
| HUSV 3580 | Rape Crisis Training: Techniques in Counseling | 4 SH |
| HUSV 4620 | Civic Engagement, Leadership, and Ethics in Practice 1 | 4 SH |
| HUSV 4621 | Civic Engagement, Leadership, and Ethics in Practice 2 | 4 SH |
| HUSV 4866 | Intercultural Studies through Human Services | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |

## Senior Seminar and Internship

Complete the following two courses:
HUSV $4700 \quad$ Senior Seminar in Human Services 4 SH
HUSV 4994 Human Services Internship 6 SH

## HUMAN SERVICES SPECIALIZATION FOR BS

DEGREE
Complete one of the specializations listed below.
Specialization in Family and Children's Services
Complete the following two required courses and three electives:

## REQUIREMENTS

| HUSV 3520 | Child Intervention and Treatment | 4 SH |
| :--- | :--- | :--- |
| SOCL 1255 | Sociology of the Family | 4 SH |
| ELECTIVES |  |  |
| CAEP 3480 | Counseling Theories and Practice | 4 SH |
| CRIM 4100 | Juvenile Law | 4 SH |
| EDUC 1113 | Human Development and Learning | 4 SH |
| PSYC 2352 | Childhood Mental Illness | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |
| SOCL 1256 | Violence in the Family | 4 SH |
| SOCL 1260 | Gender in a Changing Society | 4 SH |
| SOCL 3437 | Children and Youth in Contemporary | 4 SH |
|  | Society |  |

Specialization in Psychology/Counseling Psychology

| Complete the following two required courses and three electives: |  |  |
| :---: | :---: | :---: |
| REQUIREMENTS |  |  |
| CAEP 3485 | Mental Health and Counseling | 4 SH |
| PSYC 3406 | Abnormal Psychology | 4 SH |
| ELECTIVES |  |  |
| CAEP 3480 | Counseling Theories and Practice | 4 SH |
| CAEP 4502 | Health Counseling | 3 SH |
| COMM 3230 | Interpersonal Communication | 4 SH |
| HUSV 2320 | Techniques in Individual and Group Counseling in Human Services | 4 SH |
| HUSV 3540 | Services and Treatments for Chemical Dependencies | 4 SH |
| HUSV 3580 | Rape Crisis Training: Techniques in Counseling | 4 SH |
| NRSG 1205 | Wellness | 4 SH |
| PHIL 1165 | Moral and Social Problems in Health Care | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |

Specialization in Administration and Policy
Complete the following two required courses and three electives:

| REQUIREMENTS |  |  |
| :--- | :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |

ELECTIVES
AFAM 1270 Economic Status of Ethnic Minorities 4 SH
ECON $1240 \quad$ Economics of Crime 4 SH
HUSV 3550 Social Policy, Advocacy, and 4 SH Activism
HUSV $3570 \quad$ Strategic Philanthropy and Nonprofit 4 SH Management
SOCL $1240 \quad$ Sociology of Prejudice and Violence 4 SH
SOCL $1270 \quad$ Race and Ethnic Relations 4 SH

## Specialization in Social Justice, Identity, and Religion

Complete the following three required courses and two electives:
REQUIREMENTS
HUSV 2350 Ethnic Relations, Cultural Identity, 4 SH and Human Services
HUSV $3550 \quad$ Social Policy, Advocacy, and 4 SH Activism
HUSV $3560 \quad$ Religion, Human Services, and 4 SH Diversity in the United States
ELECTIVES
HIST $1259 \quad$ Women in Jewish Culture 4 SH

HIST $3431 \quad 4$ SH
HUSV 2350 Ethnic Relations, Cultural Identity, 4 SH and Human Services
HUSV 4866 Intercultural Studies through Human 4 SH
Services
HUSV $4920 \quad$ International Human Services 4 SH
HUSV $4994 \quad$ Human Services Internship 6 SH
MUSC $1132 \quad$ Music of the Jewish People 4 SH
POLS $2370 \quad$ Religion and Politics 4 SH
POLS 3465 Government and Politics in the Middle 4 SH
East
POLS $3470 \quad$ Arab-Israeli Conflict 4 SH
RELS $1110 \quad$ Introduction to Religion 4 SH
RELS $1150 \quad 4$ SH
RELS $1285 \quad$ Jewish Religion and Culture 4 SH
SOCL $1240 \quad$ Sociology of Prejudice and Violence 4 SH
SOCL 1287 Sociology of Religion 4 SH
Specialization in Applied Behavior Analysis
Complete the following three required courses and two electives.
REQUIREMENTS

| PSYC 2358 | Behavior Therapies | 4 SH |
| :--- | :--- | :--- |
| PSYC 3450 | Learning and Motivation | 4 SH |
| PSYC 4654 | Seminar in Behavioral Modification | 4 SH |
| ELECTIVES |  |  |
| PSYC 2352 | Childhood Mental Illness | 4 SH |
| PSYC 2356 | Nonverbal Communication | 4 SH |
| PSYC 3400 | Personality | 4 SH |
| PSYC 3404 | Developmental Psychology | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## Independent Specialization

With approval from the program director, an independent specialization may be defined in consultation with your advisor. Complete five courses.

## EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

## HUMAN SERVICES MAJOR CREDIT REQUIREMENT

Complete 66 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Human Services and Criminal Justice

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## HUMAN SERVICES AND CRIMINAL JUSTICE FOUNDATION COURSES

## Introduction to the Major

Complete one of the following courses:

| CRIM 1000 | College: An Introduction |
| :--- | :--- |
| HUSV 1000 | Human Services at Northeastern |

Criminal Justice Foundation Courses
Complete the following five courses:

| CRIM 1100 | Introduction to Criminal Justice |
| :--- | :--- |
| CRIM 1200 | Ethics, Values, and Diversity |
| CRIM 2100 | Criminal Due Process |
| CRIM 2200 | Criminology |
| CS 1100 | Computer Science <br>  |

## Human Services Foundation Courses

Complete the following four courses:
HUSV 1101 Human Services Professions 4 SH
HUSV $2300 \quad$ Counseling in Human Services 4 SH
PSYC 1101 Foundations of Psychology 4 SH
SOCL 1101 Introduction to Sociology

## HUMAN SERVICES AND CRIMINAL JUSTICE

 UPPER-LEVEL COURSES
## Policy Course

Complete one of the following courses:
PHTH $2350 \quad$ Community and Public Health 4 SH

POLS 2345 Urban Policies and Politics 4 SH
POLS $2385 \quad$ U.S. Health and Welfare Policy 4 SH
POLS 3307 Public Policy and Administration
4 SH
SOCL 3401 Social Policy and Intervention

## Organization Course

Complete one of the following courses:

| CRIM 4030 | Criminal Justice Organization and <br> Management | 4 SH |
| :--- | :--- | :--- |
| SOCL 3440 | Sociology of Human Service <br> Organizations | 4 SH |

## Criminal Justice Concentration Electives

Complete two of the following courses:

| CRIM 3100 | Criminal Law | 4 SH |
| :--- | :--- | :--- |
| CRIM 3200 | Juvenile Justice | 4 SH |
| CRIM 3300 | Corrections | 4 SH |
| CRIM 3400 | Security | 4 SH |
| CRIM 3500 | Policing | 4 SH |

## Criminal Justice Research Methods

Complete the following course:
CRIM $3600 \quad$ Criminal Justice Research Methods 4 SH

Criminal Justice System-Wide Elective
Complete one of the following courses:

| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| :--- | :--- | :--- |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4030 | Criminal Justice Organization and | 4 SH |

CRIM $4030 \quad$ Criminal Justice Organization and 4 SH
CRIM $4040 \quad$ Crime Prevention 4 SH

Statistics
Complete one of the following courses:

| CRIM 3700 | Criminal Justice Statistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| SOCL 2320 | Statistical Analysis in Sociology | 4 SH |

## HUMAN SERVICES INTERNSHIP

Complete the following course:
HUSV $4994 \quad$ Human Services Internship 6 S

## INTEGRATIVE COURSES

Criminal Justice Senior Capstone Seminar
Complete the following course:
CRIM $4949 \quad$ Senior Capstone Seminar 4 SH

## Human Services Senior Project

Complete the following course:
HUSV 4970 Junior/Senior Honors Project 1 SH

## CRIMINAL JUSTICE/HUMAN SERVICES OPEN

 ELECTIVESComplete five additional criminal justice/human services courses.
Two electives must be in criminal justice and two must be in human services.

## COOPERATIVE EDUCATION FOR CRIMINAL

 JUSTICECo-op Integration Seminar 1/Professional Development
All students should complete one of the following courses:

| CRIM 2000 | Co-op Integration Seminar 1 | 1 SH |
| :--- | :--- | :--- |
| EXED 2000 | Professional Development for Co-op | 1 SH |

## Co-op Integration Seminars 2 and 3

Co-op students should complete the following two courses. Non-co-op students should complete an additional 2 semester hours of open elective credit:

| CRIM 3000 | Co-op Integration Seminar 2 | 1 SH |
| :--- | :--- | :--- |
| CRIM 4000 | Co-op Integration Seminar 3 | 1 SH |

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

136 total semester hours required
Minimum 2.000 GPA required

## BA in Human Services and International Affairs

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## HUMAN SERVICES REQUIREMENTS

## Required Courses

Complete the following four courses:

| HUSV 1101 | Human Services Professions |
| :--- | :--- |
| HUSV 2300 | Counseling in Human Services |
| PSYC 1101 | Foundations of Psychology |
| SOCL 1101 | Introduction to Sociology |

## Research Methods

Complete one of the following courses:
PSYC 2300 Research in Psychology
SOCL 2321 Research Methods in Sociology
SOCL 2324 Human Services Research and Evaluation

## Policy

Complete one of the following courses:
POLS 2345 Urban Policies and Politics 4 SH
POLS 2385
POLS 3307
POLS 3315
SOCL 3401 U.S. Health and Welfare Policy

## Organization

Complete one of the following courses:

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| SOCL 3408 | Sociology of Organizations <br> Sociology of Human Service <br> Organizations |

## Human Services Internship

Complete the following course:
HUSV 4994 Human Services Internship

## Human Services Elective

| Complete one course from the following list: |  |  |
| :--- | :--- | :--- |
| HUSV 2320 | Techniques in Individual and Group <br> Counseling in Human Services | 4 SH |
| HUSV 2350 | Ethnic Relations, Cultural Identity, <br> and Human Services | 4 SH |
| HUSV 3550 | Social Policy, Advocacy, and <br> Activism | 4 SH |
| HUSV 3560 | Religion, Human Services, and <br> Diversity in the United States | 4 SH |
| HUSV 4866 | Strategic Philanthropy and Nonprofit <br> Management | 4 SH |
| HUSV 4920 | Intercultural Studies through Human <br> Services | 4 SH |
| International Human Services | 4 SH |  |

## INTERNATIONAL AFFAIRS REQUIREMENTS

A 3.000 GPA is required for the following international affairs requirements.

## Required Courses

Complete the following two courses:

| INTL 1101 | Globalization and International Affairs | 4 SH |
| :---: | :---: | :---: |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| and complete one of the following three courses: |  |  |
| ECON 1290 | The Global Economy | 4 SH |
| or HIST 1211 | World History since 1945 | 4 SH |
| or POLS 1155 | Comparative Politics | 4 SH |

## Regional Analysis

Complete three regional analysis courses, two of which must be in one region, from the following lists. See department for additional courses.
AFRICA
AFRS 2307
AFRS 2390
or HIST 2390
AFRS 2391
AFRS 2392
AFRS 3424

AFRS 3428
AFRS 3460

AFRS 3470
AFRS $4645 \quad$ National Model OAU/African Union 4 SH
AFRS $4690 \quad$ Topics in African History 4 SH
ANTH $4510 \quad$ Anthropology of Africa 4 SH
HIST 1180
HIST $2397 \quad$ Colonialism and Contemporary Africa 4 SH
MUSC $1128 \quad$ Music of Africa 4 SH
ASIA
ASNS $1150 \quad$ East Asian Studies 4 SH
ASNS 3444 Topics in Japanese Studies 4 SH
CLTR $1260 \quad$ Japanese Film 4 SH
CLTR 1500

| Africa Today | 4 SH |
| :--- | :--- |
| Africa and the World in Early Times | 4 SH |
| Africa and the World in Early Times | 4 SH |
| Modern African Civilization | 4 SH |
| African Diaspora | 4 SH |
| Black Pandemics/Epidemiology of | 4 SH |
| Disease |  |
| African Languages | 4 SH |
| Contemporary Government and | 4 SH |
| $\quad$ Politics in Africa | 4 SH |
| Identity and Nationalism in Africa | 4 SH |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | 4 SH |
| Colonialism and Contemporary Africa | 4 SH |
| Music of Africa |  |
|  | 4 SH |
| East Asian Studies | 4 SH |
| Topics in Japanese Studies | 4 SH |
| Japanese Film | 4 SH |
| Backgrounds of Chinese Culture |  |

CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252
HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485
RELS 1275
RELS 1290
RELS 3398
EUROPE
CLTR 1265
CLTR 1280
CLTR 1501
CLTR 1503
CLTR 1504
CLTR 2504
ECON 1293
HIST 1170
HIST 1272
HIST 1280
HIST 1281
HIST 1294

HIST 2371
HIST 2372
HIST 2375

HIST 2376
HIST 2377
HIST 2388

HIST 3475
HIST 3485
HIST 4670
HIST 4682
INTB 4602
LITR 3502
LITR 4550
LITR 4551
LITR 4555

| Introduction to Japanese Pop Culture | 4 SH |
| :--- | :--- |
| Chinese Film: Gender and Ethnicity | 4 SH |
| Introduction to South Asian History | 4 SH |
| Emergence of East Asia | 4 SH |
| Modern East Asia | 4 SH |
| Japanese Literature and Culture | 4 SH |
| History of Vietnam Wars | 4 SH |
| Contemporary China | 4 SH |
| Chinese Civilization in Her Eyes | 4 SH |
| Gender and Revolution in Russia and | 4 SH |
| $\quad$ China |  |
| Modern China | 4 SH |
| Japan since 1850 | 4 SH |
| Contemporary Japan and Korea | 4 SH |
| Global Chinese Migration | 4 SH |
| Topics in Asian History | 4 SH |
| Government and Politics in Japan | 4 SH |
| Government and Politics in China | 4 SH |
| Eastern Religions | 4 SH |
| Chinese Philosophy and Religion | 4 SH |
| Religion and Culture in Indian Cinema | 4 SH |

Spanish Civil War on Film 4 SH
French Film and Culture 4 SH
Introduction to French Culture 4 SH
Introduction to Italian Culture 4 SH
Introduction to Spanish Culture 4 SH Modern German Film and Literature 4 SH
European Economic History 4 SH

Introduction to European History 4 SH
The Invention of Europe 500-1500 4 SH
Hitler, Germany, and the Holocaust 4 SH
Holocaust
4 SH
4 SH
European Jewish History 1750-1945
$\begin{array}{ll}\text { Europe 1870-1921 } & 4 \mathrm{SH} \\ \text { Gender and Society in Modern Europe } & 4 \mathrm{SH}\end{array}$ Culture and Identity in Early Modern 4 SH England

| The British Empire | 4 SH |
| :--- | :--- |
| Ireland and the Irish Migration | 4 SH |
| Borderlands: World War II in Eastern | 4 SH | Europe

The Culture of Europe 4 SH
Vienna, Prague, Budapest 4 SH
Topics in European History 4 SH
Topics in East European History 4 SH
European Union and Globalization 4 SH
Cervantes and His Times 4 SH
Masterpieces of French Literature 14 SH Masterpieces of French Literature 24 SH

French Poetry 4 SH

| LITR 4560 | Masterpieces of Spanish Literature: <br> Eighteenth-Twentieth Century | 4 SH |
| :---: | :---: | :---: |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | SH |
| LITR 4870 | Romantic Heritage | SH |
| POLS 3435 | Politics in Western Europe | SH |
| POLS 3440 | Politics in Northern Ireland | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| LATIN AMERICA |  |  |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |


| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| :---: | :---: | :---: |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| RELS 1280 | Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |
| RUSSIA |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH |
| HIST 4681 | Topics in Soviet History | 4 SH |
| IDSC 3443 | Topics in Russian Studies | 4 SH |
| LITR 3503 | Russian Literature in Translation | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH |
| POLS 3455 | Russian Foreign Policy | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH |
| Global Dynamics |  |  |
| Complete three global dynamics courses from the list below. Note: POLS 1155 may not be used. |  |  |
| See department for additional courses. |  |  |
| AFAM 3441 | Third World Political Relations | 4 SH |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| ECON 3404 | International Food Economics and Policy | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1202 | Global Inequity | 4 SH |
| HIST 1204 | Third World Women | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |


| HIST 1214 | War in the Modern World | 4 SH |
| :---: | :---: | :---: |
| HIST 2315 | Approaches to World History | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |
| INTB 1201 | Global Environment of International Business | 4 SH |
| INTB 1203 | International Business and Global Social Responsibility | 4 SH |
| INTB 1209 | Global Environment of International Business | 4 SH |
| INTB 3310 | Cultural Aspects of International Business | 4 SH |
| INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| INTL 4940 | Global Corps Practicum | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| MUSC 3470 | War and Music | 4 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |
| POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| INTERNATIONAL AFFAIRS FOREIGN LANGUAGE REQUIREMENT |  |  |
| Note: Completing this requirement satisfies the language requirement for the BA degree. |  |  |
| Elementary-Level Language |  |  |
| Complete two language courses at the elementary level. |  |  |
| Intermediate-Level Language |  |  |
| Continue with your language through at least intermediate-level two (course number level 2102 or 2302). |  |  |

## HUMAN SERVICES/INTERNATIONAL AFFAIRS INTEGRATIVE COURSES

Complete the following two integrative courses:

| HUSV 4700 | Senior Seminar in Human Services | 4 SH |
| :--- | :--- | :--- |
| INTL 4700 | Senior Capstone Seminar in | 4 SH |
|  | International Affairs |  |

## EXPERIENTIAL EDUCATION

## International Experiential Education

Complete at least one study abroad and one short-term program or two short-term programs abroad or international co-op.

## HUMAN SERVICES AND INTERNATIONAL AFFAIRS DUAL-MAJOR CREDIT REQUIREMENT

Complete 90 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Human Services

See page 56.

## Minor in Human Services

## REQUIRED COURSES

Complete the following two courses:

| HUSV 1101 | Human Services Professions | 4 SH |
| :--- | :--- | :--- |
| HUSV 2300 | Counseling in Human Services | 4 SH |

## POLICY COURSE

Complete one of the following courses:
PHTH $2350 \quad$ Community and Public Health 4 SH
POLS 2345 Urban Policies and Politics 4 SH
POLS 2385 U.S. Health and Welfare Policy 4 SH
POLS $3307 \quad$ Public Policy and Administration 4 SH
SOCL 3401 Social Policy and Intervention 4 SH

## ORGANIZATION COURSE

Complete one of the following courses:
POLS $2334 \quad$ Bureaucracy and Government 4 SH

SOCL $3408 \quad$ Sociology of Organizations 4 SH
SOCL $3440 \quad$ Sociology of Human Service 4 SH
www.iaf.neu.edu

Denis J. Sullivan, PhD
Professor, Political Science and International Affairs, and Director of the International Affairs Program

Office: 270 Holmes Hall
Phone: 617.373.5472
Fax: 617.373.5367
E-mail contact: Cynthia Rapp, Program Coordinator, c.rapp@neu.edu

International affairs is an interdisciplinary major in the College of Arts and Sciences. The international affairs program is designed (a) to prepare today's students with the knowledge and skills needed to survive and to lead in this global marketplace-a marketplace not simply of products and services but also of ideas, identities, and values-and (b) to promote "global citizenship" and social responsibility among all members of the international community.

## Transferring to the Major

Current Northeastern students wishing to declare international affairs as a major must have a minimum 3.000 GPA.

## Academic Progression Standards

It is recommended that students majoring in international affairs maintain a minimum 3.000 GPA until the beginning of their international experience in order to be eligible for the majority of the study-abroad options.

## BA in International Affairs

Note: Students double majoring in international affairs and political science may count only two political science courses toward the international affairs major.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

| INTERNATIONAL AFFAIRS MAJOR |  |
| :--- | :--- |
| REQUIREMENTS |  |
| Required Courses |  |
| Complete the following six courses:   <br> ANTH 1101 Peoples and Cultures 4 SH <br> ECON 1115 Principles of Macroeconomics 4 SH <br> or ECON 1116 Principles of Microeconomics 4 SH <br> HIST 1211 World History since 1945 4 SH |  |

## HUMAN SERVICES ELECTIVES

Complete two HUSV courses.

## GPA REQUIREMENT

2.000 GPA required in the minor

| INTL 1101 | Globalization and International Affairs | 4 SH |
| :--- | :--- | :--- |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |

Regional Analysis
Complete three regional analysis courses, two of which must be in one region, from the following lists. Select courses taken during a semester study abroad or specific "Dialogue of Civilizations" may count toward the regional analysis requirement pending approval of the international affairs head faculty advisor. See department for additional courses.

AFRICA
AFRS 2307
AFRS 2390
or HIST 2390
AFRS 2391
AFRS 2392
AFRS 3424

AFRS 3428
AFRS 3460

AFRS 3470
AFRS 4645
AFRS 4690
ANTH 4510
HIST 1180
HIST 2397
MUSC 1128
ASIA
ASNS 1150
ASNS 3444
CLTR 1260
CLTR 1500
CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252
HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485
RELS 1275
RELS 1290
RELS 3398

| Africa Today | 4 SH |
| :--- | :--- |
| Africa and the World in Early Times | 4 SH |
| Africa and the World in Early Times | 4 SH |
| Modern African Civilization | 4 SH |
| African Diaspora | 4 SH |
| Black Pandemics/Epidemiology of | 4 SH |
| $\quad$ Disease |  |
| African Languages | 4 SH |
| Contemporary Government and | 4 SH |
| $\quad$ Politics in Africa |  |
| Identity and Nationalism in Africa | 4 SH |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | 4 SH |
| Colonialism and Contemporary Africa | 4 SH |
| Music of Africa | 4 SH |

4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH

HIST 2371
HIST 2372
HIST 2375

HIST 2376
HIST 2377
HIST 2388

HIST 3475
HIST 3485
HIST 4670
HIST 4682
INTB 4602
LITR 3502
LITR 4550
LITR 4551
LITR 4555
LITR 4560

LITR 4561

LITR 4850
LITR 4860
LITR 4870
POLS 3435
POLS $3440 \quad$ Politics in Northern Ireland 4 SH
POLS $3445 \quad$ Politics in Central and Eastern Europe 4 SH
POLS $4917 \quad$ Model European Union 4 SH
RELS 1270 Judaism, Christianity, and Islam: 4 SH Western Religions
SOCL $4535 \quad$ European Union: Social and Political 4 SH
LATIN AMERICA
AFAM $2345 \quad$ The Black Experience in the 4 SH

| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| :--- | :--- | :--- |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1501 | Introduction to French Culture | 4 SH |
| CLTR 1503 | Introduction to Italian Culture | 4 SH |
| CLTR 1504 | Introduction to Spanish Culture | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| ECON 1293 | European Economic History | 4 SH |
| HIST 1170 | Introduction to European History | 4 SH |
| HIST 1272 | The Invention of Europe 500-1500 | 4 SH |
| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH |
| HIST 1281 | Holocaust | 4 SH |
| HIST 1294 | Strangers in a Strange Land? | 4 SH |

4 SH
4 SH
4 SH

4 SH
4 SH
4 SH

4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH

4 SH

4 SH
4 SH
4 SH
4 SH

SH

4 SH

4 SH

| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| :---: | :---: | :---: |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| RELS 1280 | Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |
| RUSSIA |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH |
| HIST 4681 | Topics in Soviet History | 4 SH |


| IDSC 3443 | Topics in Russian Studies | 4 SH |
| :--- | :--- | :--- |
| LITR 3503 | Russian Literature in Translation | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH |
| POLS 3455 | Russian Foreign Policy | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH |
| Global Dynamics |  |  |
| Complete the following course: |  |  |
| POLS 1160 | International Relations | 4 SH |
| and two additional global dynamics courses from the following <br> list. Note: Courses used to fulfill major requirements may not be <br> used to satisfy the global dynamics requirement. See department |  |  |
| for additional courses. |  |  |

AFAM 3441 Third World Political Relations 4 SH
AFAM 4639 Globalism, Racism, and Human 4 SH

AFRS $1185 \quad$ Gender in the African Diaspora 4 SH
AFRS $3410 \quad$ Religion and Spirituality in the 4 SH
African Diaspora
AFRS 4585
ANTH 1101
ANTH 2305
ANTH 2315
ANTH 3450
ARTH 3410
COMM 2303

ECON 1290
ECON 3404

ECON 4635
HIST 1110
HIST 1202
HIST 1204
HIST 1205
HIST 1211
HIST 1214
HIST 2315
HIST 3452
HUSV 4920
IDSC 4905

IDSC 4906
INTB 1201

INTB 1203
$\begin{array}{ll}\text { Current Issues in the African Diaspora } & 4 \mathrm{SH} \\ \text { Peoples and Cultures } & 4 \mathrm{SH}\end{array}$
Global Markets and Local Culture $\quad 4 \mathrm{SH}$
Religion and Modernity 4 SH
Globalization: Theory and Practice 4 SH
Art of the African Diaspora 4 SH
Global and Intercultural 4 SH
Communication
The Global Economy 4 SH
International Food Economics and 4 SH
Policy
International Economics 4 SH
Introduction to World History 4 SH
Global Inequity 4 SH
Third World Women 4 SH
The Global Economy 4 SH
World History since 19454 SH
War in the Modern World 4 SH
Approaches to World History 4 SH
Global Chinese Migration 4 SH
International Human Services 4 SH
Cultural Studies: An International 4 SH
Discourse
Social/Economic Development Lab 4 SH
Global Environment of International 4 SH
Business

INTB 1209
Social Responsibility
4 SH
Global Environment of International 4 SH
INTB $3310 \quad$ Cultural Aspects of International 4 SH
INTL $3460 \quad$ Transnational Activism in Global 4 SH
Civil Society

| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| :---: | :---: | :---: |
| INTL 4940 | Global Corps Practicum | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| MUSC 3470 | War and Music | 4 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |
| POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |

Senior Seminar/Experiential Education
Complete the following course:
INTL $4700 \quad$ Senior Capstone Seminar in
International Affairs

## International Experiential Education

Complete at least one "international semester" via study abroad, international internship, or international co-op.

## INTERNATIONAL AFFAIRS FOREIGN LANGUAGE REQUIREMENT

Note: Completing this requirement satisfies the language requirement for the BA degree.

## Elementary-Level Language

Complete two language courses at the elementary level.

## Intermediate-Level Language

Continue with your language through at least intermediate-level two (course number level 2102 or 2302).

## INTERNATIONAL AFFAIRS MAJOR CREDIT/GPA REQUIREMENT <br> Complete 60 semester hours in the major with a 2.000 GPA.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000-level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in International Affairs and Anthropology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## INTERNATIONAL AFFAIRS REQUIREMENTS

## Required Courses

Complete the following two courses:

| INTL 1101 | Globalization and International Affairs | 4 SH |
| :--- | :---: | :---: |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| and complete one additional course from the following list: |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |

## Regional Analysis

Complete two regional analysis courses, both of which must be in one region, from the following lists. Summer-session study abroads are also acceptable in combination with "Dialogue of Civilizations." See department for additional courses.

| AFRICA |  |  |
| :---: | :---: | :---: |
| AFRS 2307 | Africa Today | 4 SH |
| AFRS 2390 | Africa and the World in Early Times | 4 SH |
| or HIST 2390 | Africa and the World in Early Times | 4 SH |
| AFRS 2391 | Modern African Civilization | 4 SH |
| AFRS 2392 | African Diaspora | 4 SH |
| AFRS 3424 | Black Pandemics/Epidemiology of Disease | 4 SH |
| AFRS 3428 | African Languages | 4 SH |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 SH |
| AFRS 3470 | Identity and Nationalism in Africa | 4 SH |
| AFRS 4645 | National Model OAU/African Union | 4 SH |
| AFRS 4690 | Topics in African History | 4 SH |
| ANTH 4510 | Anthropology of Africa | 4 SH |
| HIST 1180 | African History | 4 SH |
| HIST 2397 | Colonialism and Contemporary Africa | 4 SH |
| MUSC 1128 | Music of Africa | 4 SH |
| ASIA |  |  |
| ASNS 1150 | East Asian Studies | 4 SH |
| ASNS 3444 | Topics in Japanese Studies | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1500 | Backgrounds of Chinese Culture | 4 SH |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 SH |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |


| HIST 1189 | Introduction to South Asian History | 4 SH | LITR 4561 | Masterpieces of Spanish Literature: | 4 SH |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 1250 | Emergence of East Asia | 4 SH |  | Twelfth-Seventeenth Century |  |
| HIST 1251 | Modern East Asia | 4 SH | LITR 4850 | The Splendid Century | 4 SH |
| HIST 1252 | Japanese Literature and Culture | 4 SH | LITR 4860 | Age of Enlightenment | 4 SH |
| HIST 1253 | History of Vietnam Wars | 4 SH | LITR 4870 | Romantic Heritage | 4 SH |
| HIST 1254 | Contemporary China | 4 SH | POLS 3435 | Politics in Western Europe | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH | POLS 3440 | Politics in Northern Ireland | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH | POLS 3445 POLS 4917 | Politics in Central and Eastern Europe Model European Union | 4 SH 4 SH |
| HIST 2350 | Modern China | 4 SH | RELS 1270 | Judaism, Christianity, and Islam: | 4 SH |
| HIST 2351 | Japan since 1850 | 4 SH |  | Western Religions |  |
| HIST 2352 | Contemporary Japan and Korea | 4 SH | SOCL 4535 | European Union: Social and Political | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH | LATIN AMERICA |  |  |
| HIST 4650 | Topics in Asian History | 4 SH | AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| POLS 3480 | Government and Politics in Japan | 4 SH |  |  |  |
| POLS 3485 | Government and Politics in China | 4 SH | ANTH 4500 | Latin American Society and Development | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |  |  |  |
| RELS 1290 | Chinese Philosophy and Religion | 4 SH | CLTR 1240 | Latin American Film | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH | CLTR 1505 | Introduction to Latin American | 4 SH |
| EUROPE |  |  |  | Culture |  |
| CLTR 1265 | Spanish Civil War on Film | 4 SH | CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |  |  |  |
| CLTR 1501 | Introduction to French Culture | 4 SH | ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| CLTR 1503 | Introduction to Italian Culture | 4 SH |  |  |  |
| CLTR 1504 | Introduction to Spanish Culture | 4 SH | HIST 1187 | Introduction to Latin American History | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |  |  |  |
| ECON 1293 | European Economic History | 4 SH | HIST 1260 | Modern Latin America | 4 SH |
| HIST 1170 | Introduction to European History | 4 SH | HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 1272 | The Invention of Europe 500-1500 | 4 SH | HIST 4660 | Topics in Latin American History | 4 SH |
| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH | LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| HIST 1281 | Holocaust | 4 SH |  |  |  |
| HIST 1294 | Strangers in a Strange Land? | 4 SH | LITR 3501 | Caribbean Literature and Culture | 4 SH |
|  | European Jewish History 1750-1945 |  | MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| HIST 2371 | Europe 1870-1921 | 4 SH | POLS 3475 | Government and Politics in Latin America | 4 SH |
| HIST 2372 | Gender and Society in Modern Europe | 4 SH |  |  |  |
| HIST 2375 | Culture and Identity in Early Modern | 4 SH | MIDDLE EASTCLTR 1502 Introduction to Arabic Culture |  |  |
|  | England |  |  |  |  |  | 4 SH |
| HIST 2376 | The British Empire | 4 SH | ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 2377 | Ireland and the Irish Migration | 4 SH | HIST 1185 | Introduction to Middle EasternHistory | 4 SH |
| HIST 2388 | Borderlands: World War II in Eastern | 4 SH |  |  |  |
|  | Europe |  | HIST 1290 | Modern Middle East | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH | HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 3485 | Vienna, Prague, Budapest | 4 SH | HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 4670 | Topics in European History | 4 SH | HIST 2393 | Islam and Empires | 4 SH |
| HIST 4682 | Topics in East European History | 4 SH | HIST 2394 | Islamic Nationalism | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH | HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH | HIST 2396 | The Middle East and Modernity | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH | HIST 4691 | Topics in Middle Eastern History | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH | INTL 1160 | Middle East Studies | 4 SH |
| LITR 4555 | French Poetry | 4 SH | INTL 2360 | Human Rights in the Middle East | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: <br> Eighteenth-Twentieth Century | 4 SH | INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |



## Intermediate-Level Language

Continue with your language through at least intermediate-level two (course number level 2102 or 2302).

## ANTHROPOLOGY MAJOR REQUIREMENTS

## Cultural Anthropology

Complete the following three courses with a grade of C - or higher:

| ANTH 1101 | Peoples and Cultures | 4 SH |
| :--- | :--- | :--- |
| ANTH 2300 | Reading Culture through Ethnography | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |

## Anthropology Electives

Complete three courses from the following list. Two courses in study abroad may count toward this requirement:

| ANTH 2302 | Gender and Sexuality: A Cross- <br> Cultural Perspective | 4 SH |
| :--- | :--- | :--- |
| ANTH 2312 | The Anthropology of Masculinity | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 2365 | Sport, Culture, and Society | 4 SH |
| ANTH 4510 | Anthropology of Africa | 4 SH |
| LING 3412 | Language and Culture | 4 SH |

## Social Science Electives

Complete two social science courses in the following subjects. Social science electives may not include music or art:
AFRU, ECON, HIST, HUSV, INTL, LING, POLS, PSYC, or SOCL

## Advanced Anthropology Course

Complete the following course with a grade of C -or higher:
ANTH $4600 \quad$ Senior Seminar in Cultural 4 SH

## INTEGRATIVE REQUIREMENTS

## Globalization

Complete the following course:
ANTH $3450 \quad$ Globalization: Theory and Practice 4 SH

## Capstone

Complete the following course:
INTL $4700 \quad$ Senior Capstone Seminar in 4 SH

## INTERNATIONAL AFFAIRS AND ANTHROPOLOGY <br> DUAL-MAJOR CREDIT REQUIREMENT

Complete 80 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BA in International Affairs and Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## INTERNATIONAL AFFAIRS REQUIREMENTS

## International Affairs/Economics at Northeastern

Complete one of the following courses:

| INTL 1000 | International Affairs at Northeastern | 1 SH |
| :--- | :--- | :--- |
| or ECON 1000 | Economics at Northeastern | 1 SH |

## Required Courses

Complete the following four courses:

| ECON 1290 | The Global Economy | 4 SH |
| :--- | :--- | :--- |
| INTL 1101 | Globalization and International Affairs | 4 SH |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| POLS 1160 | International Relations | 4 SH |

## Regional Analysis

Complete three regional analysis courses, at least two of which must be in one region, from the following lists. Select courses taken during a semester study abroad or specific "Dialogue of Civilizations" may count toward the regional analysis requirement pending the approval of the international affairs faculty head advisor. See department for additional courses.

AFRICA
AFRS 2307
AFRS 2390
or HIST 2390
AFRS 2391
AFRS 2392
AFRS 3424

AFRS 3428
AFRS 3460

AFRS 3470
AFRS 4645
AFRS 4690
ANTH 4510
HIST 1180
HIST 2397
MUSC 1128
ASIA
ASNS 1150
ASNS 3444
CLTR 1260
CLTR 1500
CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252

| Africa Today | 4 SH |
| :--- | :--- |
| Africa and the World in Early Times | 4 SH |
| Africa and the World in Early Times | 4 SH |
| Modern African Civilization | 4 SH |
| African Diaspora | 4 SH |
| Black Pandemics/Epidemiology of | 4 SH |
| $\quad$ Disease |  |
| African Languages | 4 SH |
| Contemporary Government and | 4 SH |
| $\quad$ Politics in Africa | 4 SH |
| Identity and Nationalism in Africa | 4 SH |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | 4 SH |
| Colonialism and Contemporary Africa | 4 SH |
| Music of Africa |  |
|  | 4 SH |
| East Asian Studies | 4 SH |
| Topics in Japanese Studies | 4 SH |
| Japanese Film | 4 SH |
| Backgrounds of Chinese Culture |  |
| Introduction to Japanese Pop Culture | 4 SH |
| Chinese Film: Gender and Ethnicity | 4 SH |
| Introduction to South Asian History | 4 SH |
| Emergence of East Asia | 4 SH |
| Modern East Asia | 4 SH |
| Japanese Literature and Culture | 4 SH |


| HIST 1253 | History of Vietnam Wars | 4 SH |
| :---: | :---: | :---: |
| HIST 1254 | Contemporary China | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2350 | Modern China | 4 SH |
| HIST 2351 | Japan since 1850 | 4 SH |
| HIST 2352 | Contemporary Japan and Korea | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HIST 4650 | Topics in Asian History | 4 SH |
| POLS 3480 | Government and Politics in Japan | 4 SH |
| POLS 3485 | Government and Politics in China | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |
| RELS 1290 | Chinese Philosophy and Religion | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| EUROPE |  |  |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1501 | Introduction to French Culture | 4 SH |
| CLTR 1503 | Introduction to Italian Culture | 4 SH |
| CLTR 1504 | Introduction to Spanish Culture | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| ECON 1293 | European Economic History | 4 SH |
| HIST 1170 | Introduction to European History | 4 SH |
| HIST 1272 | The Invention of Europe 500-1500 | 4 SH |
| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH |
| HIST 1281 | Holocaust | 4 SH |
| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| HIST 2371 | Europe 1870-1921 | 4 SH |
| HIST 2372 | Gender and Society in Modern Europe | 4 SH |
| HIST 2375 | Culture and Identity in Early Modern England | 4 SH |
| HIST 2376 | The British Empire | 4 SH |
| HIST 2377 | Ireland and the Irish Migration | 4 SH |
| HIST 2388 | Borderlands: World War II in Eastern Europe | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH |
| HIST 3485 | Vienna, Prague, Budapest | 4 SH |
| HIST 4670 | Topics in European History | 4 SH |
| HIST 4682 | Topics in East European History | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |


| POLS 3435 | Politics in Western Europe | 4 SH |
| :---: | :---: | :---: |
| POLS 3440 | Politics in Northern Ireland | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| LATIN AMERICA |  |  |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |

POLS 4915
RELS 1280
RELS 1285
RUSSIA
HIST 1285
HIST 1286
HIST 2313

HIST 2386
HIST 2387
HIST 3486

HIST 4680
HIST 4681
IDSC 3443
LITR 3503
POLS 3450
POLS 3455
SOCL 1215

| Model Arab League | 4 SH |
| :--- | :--- |
| Islam | 4 SH |
| Jewish Religion and Culture | 4 SH |
|  |  |
| Introduction to Russian Civilization | 4 SH |
| History of the Soviet Union | 4 SH |
| Gender and Revolution in Russia and | 4 SH |
| $\quad$ China |  |
| History of Soviet Cinema | 4 SH |
| Soviet Secret Police | 4 SH |
| Commissars and Managers: Soviet | 4 SH |
| $\quad$ Economic History |  |
| Topics in Russian History | 4 SH |
| Topics in Soviet History | 4 SH |
| Topics in Russian Studies | 4 SH |
| Russian Literature in Translation | 4 SH |
| Government and Politics in Russia | 4 SH |
| Russian Foreign Policy | 4 SH |
| Society and Culture in Russia | 4 SH |

Global Dynamics
Complete two global dynamics courses with one at the 2000-level or above. Note: Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement.

| AFAM 3441 | Third World Political Relations | 4 SH |
| :---: | :---: | :---: |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| ECON 3404 | International Food Economics and Policy | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1202 | Global Inequity | 4 SH |
| HIST 1204 | Third World Women | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH |
| HIST 2315 | Approaches to World History | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |


| INTB 1201 | Global Environment of International Business | 4 SH |
| :---: | :---: | :---: |
| INTB 1203 | International Business and Global Social Responsibility | 4 SH |
| INTB 1209 | Global Environment of International Business | 4 SH |
| INTB 3310 | Cultural Aspects of International Business | 4 SH |
| INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| INTL 4940 | Global Corps Practicum | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| MUSC 3470 | War and Music | 4 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |
| POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |

## International Experiential Education

Complete at least one "international semester" via study abroad, international internship, international co-op, or approved two short-term programs abroad.

## INTERNATIONAL AFFAIRS FOREIGN LANGUAGE REQUIREMENT

Note: Completing this requirement satisfies the language requirement for the BA degree.

## Elementary-Level Language

Complete two language courses at the elementary level.

## Intermediate-Level Language

Continue with your language through at least intermediate-level two (course number level 2102 or 2302).

## BREADTH COURSES FOR ECONOMICS

## Calculus

Complete the following calculus course:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH

## Computer Science

Complete the following computer science course:

CS $1100 \quad$| Computer Science |
| :--- |
| and Its Applications |

## ECONOMICS MAJOR REQUIREMENTS

Complete the following six courses. Grades in these courses must average a minimum of 2.000:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |
| ECON 2315 | Macroeconomic Theory | 4 SH |
| ECON 2316 | Microeconomic Theory | 4 SH |
| ECON 2350 | Statistics | 4 SH |
| ECON 3520 | History of Economic Thought | 4 SH |

## ECONOMICS ELECTIVES

Complete three courses from the following list with a minimum of one at or above the 4000-level. Courses used to satisfy international affairs requirements may not be used as economics electives:

| ECON 1291 | Development Economics | 4 SH |
| :--- | :--- | :--- |
| ECON 1292 | Economics of the Middle East | 4 SH |
| ECON 1293 | European Economic History | 4 SH |
| ECON 4634 | Comparative Economics | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| ECON 4650 | Economic Growth and Applications | 4 SH |

## INTEGRATIVE REQUIREMENTS

## Development Economics

Complete the following course:
ECON 1291 Development Economics 4 SH

## Senior Seminar

Complete one of the following courses with a thesis or project that integrates both international affairs and economics:
ECON $4692 \quad$ Senior Economics Seminar 4 SH
or INTL 4700 Senior Capstone Seminar in 4 SH

## INTERNATIONAL AFFAIRS AND ECONOMICS

DUAL-MAJOR CREDIT REQUIREMENT
Complete 96 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

BA in Environmental Studies and International Affairs See page 121.

## BA in Human Services and International Affairs

See page 139.

## BA in Languages, Literatures, and Cultures and International Affairs

See page 158.

## BA in Political Science and International Affairs

See page 190.

## Minor in International Affairs

## REQUIRED COURSE

Complete the following course:
INTL $1101 \quad$ Globalization and International Affairs 4 SH

## REGIONAL ANALYSIS ELECTIVE COURSES

Complete two regional analysis courses from the following lists. Select courses taken during a semester study abroad or specific "Dialogue of Civilizations" may count as regional analysis requirements pending approval of the international affairs head faculty advisor.
AFRICA
AFRS 2307 Africa Today 4 SH
AFRS 2390 Africa and the World in Early Times 4 SH
or HIST 2390 Africa and the World in Early Times 4 SH
AFRS 2391 Modern African Civilization 4 SH
AFRS 2392 African Diaspora 4 SH
AFRS $3424 \quad$ Black Pandemics/Epidemiology of 4 SH Disease
AFRS 3428 African Languages 4 SH
AFRS 3460 Contemporary Government and 4 SH

AFRS $3470 \quad$ Identity and Nationalism in Africa 4 SH
AFRS 4645 National Model OAU/African Union 4 SH
AFRS $4690 \quad$ Topics in African History 4 SH
ANTH $4510 \quad$ Anthropology of Africa 4 SH
HIST $1180 \quad 4$ SH
HIST $2397 \quad$ Colonialism and Contemporary Africa 4 SH
MUSC 1128 Music of Africa 4 SH
ASIA
ASNS $1150 \quad$ East Asian Studies 4 SH
ASNS 3444 Topics in Japanese Studies 4 SH
CLTR $1260 \quad$ Japanese Film SH
CLTR $1500 \quad$ Backgrounds of Chinese Culture 4 SH
CLTR 1700 Introduction to Japanese Pop Culture 4 SH
CLTR $2501 \quad$ Chinese Film: Gender and Ethnicity 4 SH
HIST $1189 \quad$ Introduction to South Asian History 4 SH
HIST $1250 \quad 4$ SH
HIST $1251 \quad$ Modern East Asia 4 SH
HIST $1252 \quad$ Japanese Literature and Culture 4 SH

HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485
RELS 1275
RELS 1290
RELS 3398
EUROPE
CLTR 1265
CLTR 1280
CLTR 1501
CLTR 1503
CLTR 1504
CLTR 2504
ECON 1293
HIST 1170
HIST 1272
HIST 1280
HIST 1281
HIST 1294

HIST 2371
HIST 2372
HIST 2375

HIST 2376
HIST 2377
HIST 2388

HIST 3475
HIST 3485
HIST 4670
HIST 4682
INTB 4602
LITR 3502
LITR 4550
LITR 4551
LITR 4555
LITR 4560

LITR 4561

LITR 4850
LITR 4860
LITR 4870

| History of Vietnam Wars | 4 SH |
| :---: | :---: |
| Contemporary China | 4 SH |
| Chinese Civilization in Her Eyes | 4 SH |
| Gender and Revolution in Russia and China | 4 SH |
| Modern China | 4 SH |
| Japan since 1850 | 4 SH |
| Contemporary Japan and Korea | 4 SH |
| Global Chinese Migration | 4 SH |
| Topics in Asian History | 4 SH |
| Government and Politics in Japan | 4 SH |
| Government and Politics in China | 4 SH |
| Eastern Religions | 4 SH |
| Chinese Philosophy and Religion | 4 SH |
| Religion and Culture in Indian Cinema | 4 SH |
| Spanish Civil War on Film | 4 SH |
| French Film and Culture | 4 SH |
| Introduction to French Culture | 4 SH |
| Introduction to Italian Culture | 4 SH |
| Introduction to Spanish Culture | 4 SH |
| Modern German Film and Literature | 4 SH |
| European Economic History | 4 SH |
| Introduction to European History | 4 SH |
| The Invention of Europe 500-1500 | 4 SH |
| Hitler, Germany, and the Holocaust | 4 SH |
| Holocaust | 4 SH |
| Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| Europe 1870-1921 | 4 SH |
| Gender and Society in Modern Europe | 4 SH |
| Culture and Identity in Early Modern England | 4 SH |
| The British Empire | 4 SH |
| Ireland and the Irish Migration | 4 SH |
| Borderlands: World War II in Eastern Europe | 4 SH |
| The Culture of Europe | 4 SH |
| Vienna, Prague, Budapest | 4 SH |
| Topics in European History | 4 SH |
| Topics in East European History | 4 SH |
| European Union and Globalization | 4 SH |
| Cervantes and His Times | 4 SH |
| Masterpieces of French Literature 1 | 4 SH |
| Masterpieces of French Literature 2 | 4 SH |
| French Poetry | 4 SH |
| Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century | 4 SH |
| The Splendid Century | 4 SH |
| Age of Enlightenment | 4 SH |
| Romantic Heritage | 4 SH |


| POLS 3435 | Politics in Western Europe | 4 SH |
| :---: | :---: | :---: |
| POLS 3440 | Politics in Northern Ireland | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| LATIN AMERICA |  |  |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |


| POLS 4915 | Model Arab League | 4 SH | INTB 1203 | International Business and Global | 4 SH |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RELS 1280 | Islam | 4 SH |  | Social Responsibility |  |
| RELS 1285 | Jewish Religion and Culture | 4 SH | INTB 1209 | Global Environment of International | 4 SH |
| RUSSIA |  |  |  | Business |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH | INTB 3310 | Cultural Aspects of International Business | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |  |  |  |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH | INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH | INTL 4939 | Dialogue of Civilizations: <br> Globalization, Humanities, and Cultural Studies | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |  |  |  |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH |  |  |  |
|  |  |  | INTL 4940 | Global Corps Practicum | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH | LING 3412 | Language and Culture | 4 SH |
| HIST 4681 | Topics in Soviet History | 4 SH | LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| IDSC 3443 | Topics in Russian Studies | 4 SH |  |  |  |
| LITR 3503 | Russian Literature in Translation | 4 SH | MUSC 3470 | War and Music | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH | PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 3455 | Russian Foreign Policy | 4 SH | POLS 1155 | Comparative Politics | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH | POLS 1160 | International Relations | 4 SH |
|  |  |  | POLS 3405 | International Political Economy | 4 SH |
| GLOBAL DYNAMICS ELECTIVES |  |  | POLS 3407 | International Organizations | 4 SH |
| Complete two global dynamics courses from the following list: |  |  | POLS 3408 | International Security | 4 SH |
| AFAM 3441 | Third World Political Relations | 4 SH | POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH |  |  |  |
| AFRS 1185 | Gender in the African Diaspora | 4 SH | POLS 3420 POLS 3487 | National Security, War, and Terrorism | 4 SH |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH | POLS 4510 | International Law | 4 SH |
|  |  |  | POLS 4515 | Democracy in Comparative Politics | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH | POLS 4530 | Revolution, Civil War, andInsurrection | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |  |  |  |
| ANTH 2305 | Global Markets and Local Culture | 4 SH | POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |  |  |  |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH | POLS 4610 | Seminar in International Relations | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH 4 SH | POLS 4910 | Model United Nations | 4 SH |
| COMM 2303 | Global and Intercultural <br> Communication | 4 SH |  |  |  |
|  |  |  | GPA REQUIREMENT |  |  |
| ECON 1290 | The Global Economy | 4 SH | 2.000 GPA required in the minor |  |  |
| ECON 3404 | International Food Economics and Policy | 4 SH |  |  |  |
|  |  |  | Minor in Modern and Classical Greek Studies |  |  |
| ECON 4635 | International Economics | 4 SH | Complete a to | fix courses as specified below. |  |
| HIST 1110 | Introduction to World History | 4 SH |  |  |  |
| HIST 1202 | Global Inequity | 4 SH |  | QUIREMENTS |  |
| HIST 1204 | Third World Women | 4 SH | Complete the GREK 1101 | wing two Greek language courses: <br> Elementary Modern Greek 1 | 4 SH |
| HIST 1205 | The Global Economy | 4 SH | GREK 1102 | Elementary Modern Greek 2 | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |  | Elementary Modern Greek 2 | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH | ELECTIVE | QUIREMENTS |  |
| HIST 2315 | Approaches to World History | 4 SH | Complete four | rses from the following list: |  |
| HIST 3452 | Global Chinese Migration | 4 SH | COMM 2310 | Classical Rhetorical Theory | 4 SH |
| HUSV 4920 | International Human Services | 4 SH | COMM 3306 | International Communication Abroad | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH | HIST 1270 | Ancient Greece | 4 SH |
|  |  |  | INTL 4938 | Dialogue of Civilizations: <br> Globalization and Social Sciences | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |  |  |  |
| INTB 1201 | Global Environment of International | 4 SH | PHIL 2325 | Ancient Philosophy | 4 SH |
|  | Business |  | POLS 2326 | Premodern Political Thought | 4 SH |
|  |  |  | POLS 3435 | Politics in Western Europe | 4 SH |

## ADDITIONAL ELECTIVE(S)

Students should complete an additional elective (from the above list of electives) for each language course that is waived.

## GPA REQUIREMENT

2.000 GPA required in the minor

## JEWISH STUDIES

www.jewishstudies.neu.edu

James R. Ross, MA
Associate Professor and Director, Jewish Studies Program

Office: 1 Nightingale Hall
Phone: 617.373.7045
Fax: 617.373.4222
E-mail contact: Jennifer I. Sartori, Assistant Academic Specialist, j.sartori@neu.edu

The Jewish studies program offers students an opportunity to explore the history, culture, and religion of the Jewish people. An interdisciplinary program, it offers courses in a wide variety of areas, including Hebrew language, religion, philosophy, history, music, political science, and sociology.

The key elements shaping the Jewish studies experiencereligion, ethnicity, history, nationality-are also essential to understanding our increasingly complex and diverse society. Jewish studies is an ideal vantage point from which to learn about these phenomena. The program introduces students not only to the theory behind these concepts but also to how they work in practice. Contrary to popular assumption, non-Jewish students make up the majority of Jewish studies classes. Regardless of their background, all students learn quickly that the field provides them with tools and knowledge for a more critical and analytical understanding of the world around them.

The Jewish studies program offers students a dual major in Jewish studies and religion as well as a Jewish studies minor. The dual major is designed for students looking for in-depth knowledge of Jewish studies and interested in comparative religion. It is ideal for students interested in graduate work in Jewish studies or religious studies or in careers as rabbis, cantors, or Jewish educators. The minor is available for students who wish to combine their interest in Jewish studies with a major in another area, such as business or engineering. A unique academic feature of this track is the Jewish studies module in which students integrate their work in Jewish studies into their major field. In addition, students who are interested in the field of human services can pursue the specialization in social justice, identity, and religion within the human services major. This option is well suited for those interested in careers in Jewish communal services.

A special feature of the Jewish studies program is the longstanding cooperative relationship between Northeastern University
and Hebrew College. In one of the most expansive partnerships between a private university and a Jewish college, the two institutions share resources and expertise; create joint faculty appointments; allow for tuition-free cross-registration and concurrent library privileges at both institutions; and, most recently, have established a new bachelor's-master's degree program that allows students to earn two degrees concurrently: a BA from Northeastern University and either a Master of Arts in Jewish Studies (MAJS) or a Master of Jewish Education (MJEd) from Hebrew College.

Experiential education in the Jewish studies program includes study abroad and internships at organizations such as the Jewish Community Relations Council, Facing History and Ourselves, the Jewish Women's Archives, and the Israeli Consulate. Scholarships are also available to support Jewish studies students interested in the study of the Holocaust.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BA in Jewish Studies and Religion

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## JEWISH STUDIES

## Required Course

Complete the following course:
RELS 1285 Jewish Religion and Culture 4 SH

## Jewish Religion and Thought

Complete one course from the following list. Note: This course may also count as a religious studies elective:
PHIL $3385 \quad$ History of Jewish Rationalism 4 SH
PHIL 4605 Advanced Seminar: Spinoza 4 SH
RELS 1286 American Judaism 4 SH
RELS 1287 Modern Judaism 4 SH
RELS 2313 Modern Jewish Diaspora 4 SH
RELS 2315 Adam and Eve and Their Interpreters 4 SH
RELS 3387 Religion, Nation, and Identity in 4 SH

## Jewish History

Complete two courses from the following list:
HIST $1280 \quad$ Hitler, Germany, and the Holocaust 4 SH
HIST $1281 \quad 4$ SH

| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| :---: | :---: | :---: |
| HIST 3431 | American Jewish History | 4 SH |
| Jewish Art and Culture |  |  |
| Complete one course from the following list: |  |  |
| JWSS 2259 | Women in Jewish Culture | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| MUSC 1132 | Music of the Jewish People | 4 SH |
| Jewish Studies Electives |  |  |
| Complete three courses from the following list: |  |  |
| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH |
| HIST 1281 | Holocaust | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| HIST 3431 | American Jewish History | 4 SH |
| HIST 4670 | Topics in European History | 4 SH |
| HIST 7306 | Research Seminar in TwentiethCentury Europe | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| IDSC 2280 | Latin American Jewish Literature | 4 SH |
| JWSS 2259 | Women in Jewish Culture | 4 SH |
| JWSS 3447 | Topics in Jewish Studies | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| JWSS 4992 | Directed Study | 4 SH |
| MUSC 1132 | Music of the Jewish People | 4 SH |
| POLS 2370 | Religion and Politics | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| RELS 1150 | Understanding the Bible | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| RELS 1286 | American Judaism | 4 SH |
| RELS 1287 | Modern Judaism | 4 SH |
| RELS 2300 | Mysticism | 4 SH |
| RELS 2313 | Modern Jewish Diaspora | 4 SH |
| RELS 2315 | Adam and Eve and Their Interpreters | 4 SH |
| RELS 2322 | Responses to the Holocaust | 4 SH |
| RELS 3387 | Religion, Nation, and Identity in Modern Jewish Thought | 4 SH |
| SOCL 1240 | Sociology of Prejudice and Violence | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |

## RELIGION REQUIREMENTS

## Required Course

Complete the following course:
RELS 1150 Understanding the Bible

## Religion

Complete two courses from the following list:

| PHIL 2325 | Ancient Philosophy | 4 SH |
| :--- | :--- | :--- |
| RELS 1270 | Judaism, Christianity, and Islam: <br>  <br>  <br> Western Religions | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |
| RELS 1280 | Islam | 4 SH |

Comparative Religions
Complete one course from the following list:

| PHIL 2327 | Medieval Western Philosophy | 4 SH |
| :--- | :--- | :--- |
| RELS 1230 | Sound, Music, and Religion | 4 SH |
| RELS 1271 | Sex in Judaism, Christianity, and | 4 SH |
|  | Islam |  |
| RELS 1272 | Ethics in the World's Religions | 4 SH |
| RELS 2300 | Mysticism | 4 SH |

Philosophy or Religion Seminar
Complete one seminar from the following list:

| PHIL 4605 | Advanced Seminar: Spinoza | 4 SH |
| :--- | :--- | :--- |
| PHIL 4901 | Topics in Philosophy Seminar | 4 SH |
| PHIL 4902 | Great Philosophers Seminar | 4 SH |
| RELS 4547 | Seminar: Apocalypticism | 4 SH |
| RELS 4606 | Seminar: Theories and Methods in | 4 SH |
|  | $\quad$ Religious Studies |  |
| RELS 4903 | Seminar in Religion | 4 SH |
| RELS 4904 | Major Figures in Religious Studies | 4 SH |
| RELS 4906 | Topics in Religious Studies | 4 SH |

Religious Studies Electives
Complete four courses from the following list:
AFRS $3410 \quad$ Religion and Spirituality in the

PHIL 1130
PHIL 2327
PHIL 3385
PHIL 3445
PHIL 4605
PHIL 4901
PHIL 4902
PHIL 4991
PHIL 4994
RELS 1110
RELS 1150
RELS 1220
RELS 1230
RELS 1231
RELS 1270

RELS 1272
RELS 1273
RELS 1275
RELS 1276
RELS 1280
RELS 1285
RELS 1286
RELS 1290

African Diaspora
Ethics: East and West 4 SH

4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH

4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH

| RELS 1295 | Religious Perspectives on Health and Healing | 4 SH |
| :---: | :---: | :---: |
| RELS 2300 | Mysticism | 4 SH |
| RELS 2315 | Adam and Eve and Their Interpreters | 4 SH |
| RELS 2322 | Responses to the Holocaust | 4 SH |
| RELS 2394 | Chinese Buddhism | 4 SH |
| RELS 2395 | Japanese Buddhism | 4 SH |
| RELS 3387 | Religion, Nation, and Identity in Modern Jewish Thought | 4 SH |
| RELS 3390 | Cults and Sects | 4 SH |
| RELS 3393 | Asian Religions in the United States | 4 SH |
| RELS 3395 | Ramayana | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| RELS 4545 | Religion and Politics in South Asia | 4 SH |
| RELS 4546 | Advanced Biblical Studies: Hebrew Bible | 4 SH |
| RELS 4547 | Seminar: Apocalypticism | 4 SH |
| RELS 4606 | Seminar: Theories and Methods in Religious Studies | 4 SH |
| RELS 4903 | Seminar in Religion | 4 SH |
| RELS 4904 | Major Figures in Religious Studies | 4 SH |
| RELS 4906 | Topics in Religious Studies | 4 SH |

INTEGRATIVE REQUIREMENT

## Integrative Course

Complete one of the following courses. Note: This course may count as a religion seminar or a Jewish history course:
HIST $1294 \quad$ Strangers in a Strange Land? 4 SH European Jewish History 1750-1945
HIST $3431 \quad 4$ SH
RELS 4547 Seminar: Apocalypticism 4 SH

## LANGUAGE REQUIREMENT

## Hebrew Language Introduction

Complete the following two courses. These courses also count toward the BA language requirement:

| HBRW 1101 | Elementary Hebrew 1 | 4 SH |
| :--- | :--- | :--- |
| HBRW 1102 | Elementary Hebrew 2 | 4 SH |

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## Minor in Jewish Studies

## REQUIRED COURSES

Complete the following two courses:
JWSS $4660 \quad$ Jewish Studies Module 1 SH
RELS 1285 Jewish Religion and Culture 4 SH

## ELECTIVE COURSES

| Complete four courses from the following list: |  |  |
| :---: | :---: | :---: |
| HBRW 1101 | Elementary Hebrew 1 | 4 SH |
| HBRW 1102 | Elementary Hebrew 2 | 4 SH |
| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH |
| HIST 1281 | Holocaust | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| HIST 3431 | American Jewish History | 4 SH |
| HIST 4670 | Topics in European History | 4 SH |
| HIST 7306 | Research Seminar in TwentiethCentury Europe | 4 SH |
| HUSV 3560 | Religion, Human Services, and Diversity in the United States | 4 SH |
| IDSC 2280 | Latin American Jewish Literature | 4 SH |
| JWSS 2259 | Women in Jewish Culture | 4 SH |
| JWSS 3447 | Topics in Jewish Studies | 4 SH |
| JWSS 3460 | Jewish Film | 4 SH |
| JWSS 4992 | Directed Study | 4 SH |
| MUSC 1132 | Music of the Jewish People | 4 SH |
| PHIL 3385 | History of Jewish Rationalism | 4 SH |
| POLS 2370 | Religion and Politics | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| RELS 1110 | Introduction to Religion | 4 SH |
| RELS 1150 | Understanding the Bible | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| RELS 1286 | American Judaism | 4 SH |
| RELS 1287 | Modern Judaism | 4 SH |
| RELS 2300 | Mysticism | 4 SH |
| RELS 2313 | Modern Jewish Diaspora | 4 SH |
| RELS 2315 | Adam and Eve and Their Interpreters | 4 SH |
| RELS 2322 | Responses to the Holocaust | 4 SH |
| RELS 3387 | Religion, Nation, and Identity in Modern Jewish Thought | 4 SH |
| SOCL 1240 | Sociology of Prejudice and Violence | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

JOURNALISM<br>www.northeastern.edu/journalism<br>Stephen D. Burgard, MS<br>Associate Professor and Director

Office: 102 Lake Hall
Phone: 617.373.3236
Fax: 617.373.8773
E-mail contact: Susan Conover, Academic Coordinator, s.conover@neu.edu

The school of Journalism seeks to prepare students for careers in news media and related fields. The skills it emphasizes-writing, editing, video and audio production, design and graphics, and online reporting-also have broad applications in numerous other disciplines.

Students may enroll in either a five-year cooperative education program or a four-year program without co-op. The school strongly advises students to obtain cooperative education experience.

Graduates work for some of the world's best newspapers and magazines, radio and television stations, online publications, wire services, public relations departments, and advertising agencies.

## Transferring to the Major

Any student transferring to the School of Journalism must have at least a 3.000 cumulative GPA. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Journalism majors must maintain a minimum GPA of 2.250.
Students who remain below 2.250 for two consecutive semesters may be dropped from the major.

## BA in Journalism

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## JOURNALISM MAJOR REQUIREMENTS

Students transferring from outside institutions must complete a minimum of five four-credit journalism courses at Northeastern, and these must include JRNL 2201, JRNL 2301, and JRNL 4650.

## Journalism Courses

Complete the following three courses with a grade of C or higher:

| JRNL 1101 | Journalism 1 | 4 SH |
| :--- | :--- | :--- |
| JRNL 2201 | Journalism 2 | 4 SH |
| JRNL 2301 | Journalism 3 | 4 SH |

## Required Journalism

Complete the following four courses:

| JRNL 1150 | Interpreting the Day’s News | 4 SH |
| :--- | :--- | :--- |
| JRNL 2350 | History of Journalism | 4 SH |
| JRNL 3550 | Law of the Press | 4 SH |
| JRNL 4650 | Journalism Ethics and Issues | 4 SH |

## Journalism Electives

Complete two JRNL electives.

## Journalism-Related Requirement

Complete the following course:
HIST $1130 \quad$ Introduction to American History 4 SH

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## JOURNALISM MAJOR CREDIT REQUIREMENT

Complete 40 semester hours in the major.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Journalism

See page 91.

## Minor in Journalism

REQUIRED COURSES

| Complete the following six courses: |  |  |
| :--- | :--- | :--- |
| JRNL 1101 | Journalism 1 | 4 SH |
| JRNL 1150 | Interpreting the Day's News | 4 SH |
| JRNL 2201 | Journalism 2 | 4 SH |
| JRNL 2301 | Journalism 3 | 4 SH |
| JRNL 3550 | Law of the Press | 4 SH |
| JRNL 4650 | Journalism Ethics and Issues | 4 SH |
|  |  |  |
| GPA REQUIREMENT |  |  |
| 2.000 GPA required in the minor |  |  |

## LANGUAGES, LITERATURES, AND CULTURES

www.modernlanguages.neu.edu

Dennis R. Cokely, PhD
Professor and Chair

Office: 400 Meserve Hall
Phone: 617.373.2234
Fax: 617.373.2298
E-mail contact: Dennis R. Cokely, Professor and Chair, d.cokely@neu.edu

The study of languages can benefit all students, regardless of their majors. The multicultural world in which we live requires increased communication among varied and often divergent cultures. Learning a new language and its culture enables students to cross cultural barriers and to achieve a more cosmopolitan, open-minded, and sensitive view of the world.

The major seeks to ensure that students become as fluent as possible in a given language and introduces them to the relevant culture of that language. For this reason, the students take a number of language classes as well as literature, cinema, and general civilization courses. In addition, students are required to participate in study abroad and are urged to consider participating in international co-op, which prepares students to function on an everyday level in a foreign country.

The major is currently available in Spanish. It is possible to minor in French or Spanish.

A major in a language can form the basis for careers in teaching at the elementary, secondary, or college level; international business relations; high-tech fields; government service; journalism; library science; world affairs; travel; and community service, especially in Spanish-speaking areas.

## BA in Spanish

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## SPANISH MAJOR REQUIREMENTS

## Language Requirements

Complete the following three courses:
SPNS 2102 Intermediate Spanish 24 SH
SPNS $3101 \quad$ Advanced Spanish $1 \quad 4$ SH
SPNS $3102 \quad$ Advanced Spanish 2 SH

## Language and Linguistics

Complete the following course:
LING $1150 \quad$ Introduction to Language and
Linguistics

## Culture

Complete the following four courses:

| CLTR 1240 | Latin American Film | 4 SH |
| :--- | :--- | :--- |
| CLTR 1504 | Introduction to Spanish Culture | 4 SH |
| CLTR 1505 | Introduction to Latin American | 4 SH |
|  | Culture |  |
| LITR 3500 | International Perspectives | 4 SH |

## Literature

Complete the following four courses:

| LITR 3502 | Cervantes and His Times |  |
| :--- | :--- | :--- |
| LITR 4560 | Masterpieces of Spanish Literature: <br> Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century | 4 SH |
| LITR 4655 | Latin American Literature | 4 SH |

## Spanish Seminar

Complete the following seminar:
LANG $4800 \quad$ Special Topics in Language 4 SH

## Study Abroad/Experiential Education

Please see department for details.

## Capstone

Complete the capstone below:
LANG $4700 \quad$ Capstone Seminar

## SPANISH MAJOR CREDIT REQUIREMENT

Complete 53 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION <br> If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Languages, Literatures, and Cultures and International Affairs

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## MODERN LANGUAGE REQUIREMENTS

## Language Requirements

Complete the following four courses in the language of your major:
FRENCH
FRNH 2101 Intermediate French 14 SH
FRNH 2102 Intermediate French 24 SH
FRNH 3101 Advanced French 14 SH
FRNH 3102 Advanced French 2 SH

SPANISH
SPNS 2101 Intermediate Spanish 14 SH
SPNS 2102 Intermediate Spanish 24 SH
SPNS $3101 \quad$ Advanced Spanish 14 SH
SPNS 3102

## Literature

Complete one course from the following list in the language of your major:

| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| :--- | :---: | :---: |
| or LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: | 4 SH |
|  | $\quad$ Eighteenth-Twentieth Century |  |
| LITR 4561 | Masterpieces of Spanish Literature: <br> $\quad$Twelfth-Seventeenth Century | 4 SH |

## Advanced Language

Complete two advanced literature/cultural courses in the language of your major while on study abroad:
FRNH 2101 to FRNH 5999

| LANG 4670 | Topics in French | 4 SH |
| :---: | :---: | :---: |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |
| SPNS 2101 to SPNS 5999 |  |  |
| LANG 4970 | Junior/Senior Honors Project 1 | 4 SH |
| LANG 4971 | Junior/Senior Honors Project 2 | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| LITR 4565 | Spanish Golden Age | 4 SH |
| LITR 4655 | Latin American Literature | 4 SH |

## Language Electives

Complete three electives in the language of your major at or above the 3000-level:
FRNH 2990 to FRNH 4999

| LANG 3438 | Structure of French | 4 SH |
| :---: | :---: | :---: |
| LANG 4670 | Topics in French | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |
| SPNS 2990 to SPNS 3990 |  |  |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| LITR 4565 | Spanish Golden Age | 4 SH |
| LITR 4655 | Latin American Literature | 4 S |

## INTERNATIONAL AFFAIRS REQUIREMENTS

## Required Courses

Complete the following three courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
or ECON 1290 The Global Economy 4 SH
INTL 1101 Globalization and International Affairs 4 SH
INTL $3400 \quad$ International Conflict and Negotiation 4 SH

## Regional Analysis

Complete three regional analysis courses, two of which must be in one region, from the following lists. See department for additional courses.
AFRICA
AFRS 2307
AFRS 2390
or HIST 2390
AFRS 2391
AFRS 2392
AFRS 3424

AFRS 3428
AFRS 3460

AFRS 3470
AFRS 4645
AFRS 4690
ANTH 4510
HIST 1180
HIST 2397
MUSC 1128
ASIA
ASNS 1150
ASNS 3444
CLTR 1260
CLTR 1500
CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252
HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485

| Africa Today | 4 SH |
| :--- | :--- |
| Africa and the World in Early Times | 4 SH |
| Africa and the World in Early Times | 4 SH |
| Modern African Civilization | 4 SH |
| African Diaspora | 4 SH |
| Black Pandemics/Epidemiology of | 4 SH |
| Disease |  |
| African Languages | 4 SH |
| Contemporary Government and | 4 SH |
| $\quad$ Politics in Africa | 4 SH |
| Identity and Nationalism in Africa | 4 SH |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | 4 SH |
| Colonialism and Contemporary Africa |  |
| Music of Africa | 4 SH |
|  |  |
| East Asian Studies | 4 SH |
| Topics in Japanese Studies | 4 SH |
| Japanese Film | 4 SH |
| Backgrounds of Chinese Culture | 4 SH |
| Introduction to Japanese Pop Culture | 4 SH |
| Chinese Film: Gender and Ethnicity | 4 SH |
| Introduction to South Asian History | 4 SH |
| Emergence of East Asia | 4 SH |
| Modern East Asia | 4 SH |
| Japanese Literature and Culture | 4 SH |
| History of Vietnam Wars | 4 SH |
| Contemporary China | 4 SH |
| Chinese Civilization in Her Eyes | 4 SH |
| Gender and Revolution in Russia and | 4 SH |
| China | 4 SH |
| Modern China | 4 SH |
| Japan since 1850 | 4 SH |
| Contemporary Japan and Korea | 4 SH |
| Global Chinese Migration | 4 SH |
| Topics in Asian History |  |
| Government and Politics in Japan | 4 SH |
| Government and Politics in China | 4 SH |

RELS 1275
RELS 1290
RELS 3398
EUROPE
CLTR 1265
CLTR 1280
CLTR 1501
CLTR 1503
CLTR 1504
CLTR 2504
ECON 1293
HIST 1170
HIST 1272
HIST 1280
HIST 1281
HIST 1294

HIST 2371
HIST 2372
HIST 2375

HIST 2376
HIST 2377
HIST 2388

HIST 3475
HIST 3485
HIST 4670
HIST 4682
INTB 4602
LITR 3502
LITR 4550
LITR 4551
LITR 4555
LITR 4560

LITR 4561

LITR 4850
LITR 4860
LITR 4870
POLS 3435
POLS 3440
POLS 3445
POLS 4917
RELS 1270
SOCL 4535

LATIN AMERICA
AFAM 2345 The Black Experience in the 4 SH Caribbean
ANTH $4500 \quad$ Latin American Society and 4 SH

| CLTR 1240 | Latin American Film | SH |
| :---: | :---: | :---: |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |
| HIST 1260 | Modern Latin America | 4 SH |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| RELS 1280 | Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |
| RUSSIA |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH |
| HIST 4681 | Topics in Soviet History | 4 SH |


| IDSC 3443 | Topics in Russian Studies | 4 SH |
| :---: | :---: | :---: |
| LITR 3503 | Russian Literature in Translation | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH |
| POLS 3455 | Russian Foreign Policy | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH |
| Global Dynamics |  |  |
| Complete three global dynamics courses from the following list: |  |  |
| AFAM 3441 | Third World Political Relations | 4 SH |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| ECON 3404 | International Food Economics and Policy | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1202 | Global Inequity | 4 SH |
| HIST 1204 | Third World Women | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH |
| HIST 2315 | Approaches to World History | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |
| INTB 1201 | Global Environment of International Business | 4 SH |
| INTB 1203 | International Business and Global Social Responsibility | 4 SH |
| INTB 1209 | Global Environment of International Business | 4 SH |
| INTB 3310 | Cultural Aspects of International Business | 4 SH |
| INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| INTL 4940 | Global Corps Practicum | 4 SH |


| LING 3412 | Language and Culture | 4 SH |
| :---: | :---: | :---: |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| MUSC 3470 | War and Music | 4 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |
| POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| INTEGRATIVE COURSES |  |  |
| Capstone |  |  |
| Complete the following two courses: |  |  |
| INTL 4700 | Senior Capstone Seminar in International Affairs | 4 SH |
| LITR 3500 | International Perspectives | 4 SH |

## EXPERIENTIAL EDUCATION REQUIREMENT

## Study Abroad/Experiential Education

Complete at least one semester via study abroad.
LANGUAGES, LITERATURES, AND CULTURES AND INTERNATIONAL AFFAIRS DUAL-MAJOR CREDIT/GPA REQUIREMENTS
Complete 88 semester hours in the major with a 3.000 GPA.
GENERAL ELECTIVES
Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BA in Cinema Studies and Languages, Literatures, and Cultures

See page 92.

## Minor in French

## REQUIRED COURSES

Complete the following three courses:

| CLTR 1501 | Introduction to French Culture | 4 SH |
| :--- | :--- | :--- |
| FRNH 2102 | Intermediate French 2 | 4 SH |
| FRNH 3101 | Advanced French 1 | 4 SH |

## MASTERPIECES SERIES

Complete one of the following courses:

| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| :--- | :--- | :--- |
| or LITR 4551 | Masterpieces of French Literature 2 | 4 SH |

## ADVANCED ELECTIVES

Complete two courses from the following list. One of the two courses can be the remaining half of the Masterpieces Series:

| FRNH 3102 | Advanced French 2 | 4 SH |
| :--- | :--- | :--- |
| LANG 4670 | Topics in French | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| or LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Spanish

## REQUIRED COURSES

Complete the following three courses:
CLTR 1504 Introduction to Spanish Culture 4 SH
or CLTR 1505 Introduction to Latin American

SPNS 2102 Culture

SPNS 3101 Advanced Spanis 1
4 SH
SPNS 3101
Advanced Spanish 1

## MASTERPIECES SERIES

Complete one of the following courses:

| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century <br> or LITR 4560 | 4 SH |
| :--- | :---: | :---: |
|  | Masterpieces of Spanish Literature: <br> Eighteenth-Twentieth Century | 4 SH |
|  |  |  |

## ADVANCED ELECTIVES

Complete two courses from the following list. One of the two courses can be the remaining half of the Masterpiece Series:

| CLTR 1240 | Latin American Film | 4 SH |
| :---: | :---: | :---: |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| LANG 4800 | Special Topics in Language | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| or LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |


| LITR 4565 | Spanish Golden Age | 4 SH |
| :--- | :--- | :--- |
| LITR 4655 | Latin American Literature | 4 SH |
| SPNS 3102 | Advanced Spanish 2 | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Modern and Classical Greek Studies

See page 153.

## LINGUISTICS

www.casdn.neu.edu/~linguistics

Janet H. Randall, PhD
Associate Professor and Director, Linguistics Program

Office: 565 Holmes Hall
Phone: 617.373.3678
Fax: 617.373.8904
E-mail contact: Janet H. Randall, Associate Professor and Director, j.randall@neu.edu

LLinguistics is the scientific study of human language. A growing and exciting field, it has links to diverse fields including cognitive psychology, philosophy, neuroscience, computer science, artificial intelligence, sociology, language teaching, anthropology, and education. Linguistics is a key component of the emerging field of cognitive science, the study of the structure and functioning of human cognitive processes.

How do children learn to speak? How is language represented in the mind? What do all languages, including sign languages, have in common? How is language different from the communication systems used by whales, bees, and chimpanzees? What do we need to program into a computer in order to converse with it? How might we think about linguistic controversies, including debates about official languages, Ebonics, gender bias, and bilingualism in education? Linguistics attempts to answer each of these questions and covers a surprisingly broad range of topics related to language and communication. Cutting-edge work in cognitive science investigates how natural languages are learned and processed. Grammar checkers and translation programs use language parsers; search engines, browsers, and editors use results from computational linguistics. Linguistics is behind every application that recognizes or synthesizes speech. To work in a field that involves language in any way, you'll need to know how language works, the stuff of linguistics.

Linguistics is an interdisciplinary program at Northeastern. Seven departments (African-American Studies; American Sign Language; English; Languages, Literatures, and Cultures; Philosophy; Psychology; and Sociology/Anthropology) collaborate to offer a comprehensive program with courses in core areas (syntax, phonology, semantics); in psycholinguistics; in
sociolinguistics; and in the structure of French, Spanish, African languages, Romance languages, American Sign Language, and African-American English, among others. The major reflects the current research of our faculty: linguists, sociologists, psychologists, language educators, and teachers of second languages.

Students can pursue a major in linguistics. A linguistics minor is also available, as are two dual majors, one in linguistics and psychology, the other in linguistics and English.

Linguistics offers a variety of co-ops, including positions at local companies involved in speech recognition and production, as well as at Northeastern's own speech perception and language processing labs. Linguistics majors can also participate in a special foreign internship opportunity, doing research at the Max Planck Institute for Psycholinguistics in the Netherlands.

Students with backgrounds in linguistics have pursued advanced degrees in fields including law, cognitive science, education, English, interpreting, business, speech pathology, computer science, developmental psychology, and linguistics itself. Other graduates have gone on to work in research, translation, special education, dictionary publishing, and robotics.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the linguistic program's criteria for admission and availability of space in the program.

## Academic Progression Standards

Same as college standards.

## BA in Linguistics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## LINGUISTICS MAJOR REQUIREMENTS

Required Courses
Complete the following six courses:
LING 1150 Introduction to Language and

LING $2350 \quad$ Linguistic Analysis 4 SH
LING 3412 Language and Culture 4 SH
LING $3422 \quad 4$ SH
LING 3450 Syntax 4 SH
PSYC 3464 Psychology of Language 4 SH

## Laboratory

Complete the two required prerequisites and then one of the two laboratory courses or a directed study on a topic related to psycholinguistics or cognition with prior approval:

PREREQUISITES

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| LABORATORY |  |  |
| LING 4992 | Directed Study | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |

## Experiential Education

Complete the following course:
LING 4996 Experiential Education Directed Study 4 SH
Linguistics Seminar
Complete one seminar from the following list:

| LING 4654 | Seminar in Linguistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |

## Linguistics Electives

Complete three courses that were not taken above from the following list:
DEAF 2700
LANG 3438 Structure of French 4 SH
LANG 4920 Foreign Language Teaching: Theory 4 SH

LING $3402 \quad$ African-American English 4 SH
LING 3428 African Languages 4 SH
LING $3430 \quad 4$ SH
LING 3432 Romance Linguistics 4 SH
LING $3434 \quad$ Bilingualism 4 SH
LING 3436 Structure of Spanish 4 SH
LING 3442 Sociolinguistics 4 SH
LING 3444 Linguistics in Education 4 SH
LING 3448 Issues in Linguistics 4 SH
LING 3452 Semantics 4 SH
LING 3454 History of English 4 SH
LING $3456 \quad$ Language and Gender 4 SH
LING 3458 Topics in Linguistics 4 SH
LING $4654 \quad$ Seminar in Linguistics 4 SH
LING 4992 Directed Study 4 SH
PHIL 1215 Symbolic Logic 4 SH
PHIL $4540 \quad$ Philosophy of Language 4 SH
PSYC 3466 Cognition 4 SH
PSYC $4520 \quad$ Language and the Brain 4 SH
PSYC $4522 \quad$ Psychology of Reading 4 SH
PSYC $4524 \quad$ Cognitive Development 4 SH
PSYC 4610 Laboratory in Psycholinguistics 4 SH
PSYC 4612 Laboratory in Cognition 4 SH
PSYC $4658 \quad$ Seminar in Psycholinguistics 4 SH
PSYC $4660 \quad$ Seminar in Cognition 4 SH

## LINGUISTICS MAJOR CREDIT REQUIREMENT

Complete 56 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Linguistics and English

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## LINGUISTICS REQUIREMENTS

## Introductory Linguistics

Complete the following course:
LING 1150 Introduction to Language and Linguistics

## Intermediate/Advanced Linguistics

Complete the following four courses:

| LING 2350 | Linguistic Analysis |
| :--- | :--- |
| LING 3412 | Language and Culture |
| LING 3422 | Phonology |
| LING 3450 | Syntax |

## Linguistics Electives

Complete three courses not already taken above from the following list:

| DEAF 2700 | ASL Linguistics | 4 SH |
| :--- | :--- | :--- |
| LANG 3438 | Structure of French | 4 SH |
| LING 3402 | African-American English | 4 SH |
| LING 3428 | African Languages | 4 SH |
| LING 3430 | Applied Linguistics | 4 SH |
| LING 3432 | Romance Linguistics | 4 SH |
| LING 3434 | Bilingualism | 4 SH |
| LING 3436 | Structure of Spanish | 4 SH |
| LING 3442 | Sociolinguistics | 4 SH |
| LING 3444 | Linguistics in Education | 4 SH |
| LING 3448 | Issues in Linguistics | 4 SH |
| LING 3452 | Semantics | 4 SH |
| LING 3456 | Language and Gender | 4 SH |
| LING 3458 | Topics in Linguistics | 4 SH |
| LING 4654 | Seminar in Linguistics | 4 SH |
| LING 4992 | Directed Study | 4 SH |
| PHIL 1215 | Symbolic Logic | 4 SH |
| PHIL 4540 | Philosophy of Language | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |
| PSYC 4520 | Language and the Brain | 4 SH |
| PSYC 4522 | Psychology of Reading | 4 SH |
| PSYC 4524 | Cognitive Development | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |

4 SH

| PSYC 4612 | Laboratory in Cognition | 4 SH |
| :--- | :--- | :--- |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| PSYC 4660 | Seminar in Cognition | 4 SH |

## ENGLISH REQUIREMENTS

## Literature Backgrounds

Complete the following course:
ENGL $2100 \quad$ Backgrounds to English and American 4 SH Literature

## Literature Survey Courses

Complete three courses from the following list:
ENGL 2220 Survey of British Literature 1 SH
ENGL 2221 Survey of British Literature 2 SH
ENGL 2223 Survey of American Literature 14 SH
ENGL 2224 Survey of American Literature 24 SH

## Shakespeare Course

Conplete couse from the following list.
ENGL 2300 Introduction to Shakespeare 4 SH
ENGL $3489 \quad$ Shakespeare on Film 4 SH
ENGL $3612 \quad$ Shakespeare's Comedies 4 SH
ENGL $3613 \quad$ Shakespeare's Tragedies 4 SH
ENGL $3614 \quad$ Topics in Shakespeare 4 SH
Literature before 1800
Complete one course from the following list:

| ENGL 4605 | Medieval English Literature | 4 SH |
| :--- | :--- | :--- |
| ENGL 4606 | Topics in Medieval Literature | 4 SH |
| ENGL 4610 | Sixteenth-Century British Literature | 4 SH |
| ENGL 4619 | Eighteenth-Century British Literature | 4 SH |
| ENGL 4620 | Topics in Eighteenth-Century British <br>  <br> Literature | 4 SH |
| ENGL 4661 | Early American Literature | 4 SH |

## Literature after 1800

Complete one course from the following list:
CINE $2394 \quad$ Modern Film 4 SH

ENGL 3408 The Modern Bestseller 4 SH
ENGL 3671 Multiethnic Literatures of the U.S. 4 SH
ENGL 3672 Asian-American Literature 4 SH
ENGL $3673 \quad$ U.S. Latino/Latina Literature 4 SH
ENGL 3674 American Indian Literature 4 SH
ENGL 4519 American Novels 14 SH
ENGL 4520 American Novels 2 SH
ENGL 4621 Romantic Poetry 4 SH
ENGL $4624 \quad$ Victorian Literature 4 SH
ENGL 4625 Topics in Victorian Literature 4 SH
ENGL 4626 Nineteenth-Century British Fiction 4 SH
ENGL $4630 \quad$ Major Twentieth-Century British 4 SH
Novelists
ENGL 4631 Twentieth-Century British Literature 4 SH
ENGL 4663 Early African-American Literature 4 SH
ENGL 4665 The American Renaissance 4 SH
ENGL 4667 American Realism 4 SH
ENGL 4668 Modern American Literature 4 SH

ENGL 4670
ENGL 4671
ENGL 4672
ENGL 4673
ENGL 4674
ENGL 4676
ENGL 4678
ENGL 4679

## LINGUISTICS/ENGLISH DUAL-MAJOR

 REQUIREMENTSExperiential Education
Complete the following course:
LING 4996 Experiential Education Directed Study 4 SH

## Integrative Course

Complete the following course:
LING $3454 \quad$ History of English

## JUNIOR/SENIOR SEMINAR

Complete the following course:
ENGL $4710 \quad$ Junior/Senior Seminar 4 SH

## LINGUISTICS AND ENGLISH DUAL-MAJOR CREDIT REQUIREMENT

Complete 72 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Linguistics and Psychology

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## LINGUISTICS REQUIREMENTS

## Introductory Linguistics

Complete the following course:
LING $1150 \quad$ Introduction to Language and
Linguistics

## Intermediate/Advanced Linguistics

Complete the following four courses:
LING 2350 Linguistic Analysis
4 SH
LING $3412 \quad$ Language and Culture 4 SH
LING $3422 \quad 4$ SH
LING 3450 Syntax 4 SH

## Linguistics Electives

Complete three courses from the following list:

| DEAF 2700 | ASL Linguistics | 4 SH |
| :--- | :--- | :--- |
| LANG 3438 | Structure of French | 4 SH |
| LING 3402 | African-American English | 4 SH |
| LING 3428 | African Languages | 4 SH |
| LING 3430 | Applied Linguistics | 4 SH |
| LING 3432 | Romance Linguistics | 4 SH |
| LING 3434 | Bilingualism | 4 SH |
| LING 3436 | Structure of Spanish | 4 SH |
| LING 3442 | Sociolinguistics | 4 SH |
| LING 3444 | Linguistics in Education | 4 SH |
| LING 3448 | Issues in Linguistics | 4 SH |
| LING 3452 | Semantics | 4 SH |
| LING 3454 | History of English | 4 SH |
| LING 3456 | Language and Gender | 4 SH |
| LING 3458 | Topics in Linguistics | 4 SH |
| LING 4654 | Seminar in Linguistics | 4 SH |
| LING 4992 | Directed Study | 4 SH |
| PHIL 1215 | Symbolic Logic | 4 SH |
| PHIL 4540 | Philosophy of Language | 4 SH |

## PSYCHOLOGY REQUIREMENTS

Introductory and Intermediate Psychology
Complete the following two courses:

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |

## Advanced Psychology

Complete the following two courses:
PSYC $3402 \quad$ Social Psychology 4 SH

PSYC $3466 \quad$ Cognition 4 SH

## Psychology Lab

Complete one of the two laboratory courses or a directed study on a topic related to psycholinguistics or cognition with prior approval:

| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| :--- | :--- | :--- |
| or PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4992 | Directed Study | 4 SH |

## Psychology Seminar

Complete one seminar from the following list:
PSYC $4658 \quad$ Seminar in Psycholinguistics 4 SH
PSYC $4660 \quad$ Seminar in Cognition 4 SH

## Psychology Electives

Complete two courses from the following list. A directed study on a topic related to psycholinguistics or cognition may be taken with prior approval:
PSYC 2356 Nonverbal Communication 4 SH
PSYC 3404 Developmental Psychology 4 SH
PSYC $3450 \quad$ Learning and Motivation 4 SH
PSYC $3452 \quad$ Sensation and Perception 4 SH
PSYC $3458 \quad$ Psychobiology 4 SH
PSYC $3526 \quad$ Categorization and Reasoning 4 SH
PSYC $4520 \quad$ Language and the Brain 4 SH
PSYC $4522 \quad$ Psychology of Reading 4 SH

| PSYC 4524 | Cognitive Development | 4 SH |
| :--- | :--- | :--- |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4992 | Directed Study | 4 SH |

## LINGUISTICS/PSYCHOLOGY DUAL-MAJOR REQUIREMENTS

## Experiential Education

Complete either an experiential education directed study or two junior/senior honors project courses:

| LING 4996 | Experiential Education Directed Study | 4 SH |
| :--- | :--- | :--- |
| PSYC 4970 | Junior/Senior Honors Project 1 | 4 SH |
| with PSYC 4971 | Junior/Senior Honors Project 2 | 4 SH |
| PSYC 4996 | Experiential Education Directed Study | 4 SH |

## Integrative Course

Complete the following course:
PSYC $3464 \quad$ Psychology of Language 4 SH

## LINGUISTICS AND PSYCHOLOGY DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 72 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## Minor in Linguistics

## REQUIRED COURSES

Complete the following course:
LING $1150 \quad$ Introduction to Language and
Linguistics
and complete two of the following courses:
LING 2350 Linguistic Analysis
4 SH
LING 3422 Phonology
LING 3450 Syntax

## ELECTIVE COURSES

Complete two linguistics courses in the following range:
LING 2000 to LING 4699
GPA REQUIREMENT
2.000 GPA required in the minor

MATHEMATICS
www.math.neu.edu

Richard D. Porter, PhD
Professor and Interim Chair

Office: 567 Lake Hall
Phone: 617.373.2450
Fax: 617.373.5658
E-mail contact: Solomon M. Jekel, Associate Professor and Head Advisor, s.jekel@neu.edu

Mathematics is of ever-increasing importance to our society and everyday life. It has long been the language of science and technology, and provides a rich source of methods for analyzing and solving problems encountered in the physical world. Today, mathematics is essential in virtually all fields of human endeavor, including business, the arts, and the social sciences.

The Bachelor of Arts degree requires at least eleven mathematics courses and two physics courses, in addition to the study of a foreign language; this program is appropriate for students who wish a broader liberal arts education. The Bachelor of Science degree requires at least fourteen mathematics courses and two physics courses but no foreign language study; it is more specialized, and it is recommended for those strongly interested in mathematics and science. The department also offers a minor degree in mathematics.

The major programs provide flexibility with elective courses. Students may take advantage of a range of interdisciplinary programs and may join a major in mathematics with one in such fields as computer science, physics, and biology.

Exceptional students are accepted into the Honors Program, and have the option to enroll in honors sections of several of their mathematics courses. All math majors may benefit from co-op opportunities in the scientific and business communities in Boston and elsewhere.

Many of the mathematics courses that we offer use computers for visualization, modeling, and numerical approximation. The math computer lab features twenty-two personal computers supported by student mentors in a pleasant physical environment.

Students planning to teach secondary-school mathematics must major in mathematics and take a specific minor in education, which includes course work and student teaching.

Mathematical training may lead to opportunities in applied research (natural sciences, engineering, economics, management, computer science) as well as in mathematical research, teaching, or industry.

## Transferring to the Major

Upperclass students transferring to mathematics must have a cumulative GPA of at least 2.000 . They must also have at least a 2.000 GPA in all mathematics courses and a minimum grade of C in the following courses (if already taken):

| MATH 1365 | Introduction to Mathematical Reasoning | 4 SH |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 SH |
| MATH 2331 | Linear Algebra | SH |
| Acceptance in the major is based on students' meeting the department's criteria for admission and availability of space in the major. |  |  |

## Academic Progression Standards

Students who begin as freshman mathematics majors must, after the fourth semester, satisfy the following: (a) have completed at least six of their required mathematics and physics courses; (b) have a grade average of C or better in the following courses:

| MATH 1365 | Introduction to Mathematical Reasoning | 4 SH |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 SH |
| MATH 2331 | Linear Algebra | H |
| and (c) have a GPA of at least 2.000 in all required mathematics and physics courses. |  |  |
| Students who transfer to the major must, after two semesters in the major, satisfy the following: (a) have completed at least four of their required mathematics and physics courses; (b) have a GPA of at least 2.000 in all required mathematics and physics courses; and (c) have grades of C or better in the following courses (if already taken): |  |  |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 SH |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 SH |
| MATH 2331 | Linear Algebra | 4 SH |

Students who fail to achieve the above conditions will be placed on departmental probation. Students who remain two consecutive semesters on departmental probation will be dismissed from the major.

## BA in Mathematics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## MATHEMATICS MAJOR REQUIREMENTS FOR BA

## Problem Solving

Complete the following course:
MATH 1365 Introduction to Mathematical 4 SH Reasoning

## History of Mathematics

Complete the following course:
MATH $2201 \quad 4$ SH

## Calculus

Complete the following three courses:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH

Intermediate and Advanced Mathematics
Complete the following four courses:
MATH $2331 \quad$ Linear Algebra 4 SH

MATH $3150 \quad$ Real Analysis 4 SH
or MATH 4565 Topology 4 SH
MATH $3175 \quad$ Group Theory 4 SH
MATH 3560 Geometry 4 SH
or MATH 3527 Number Theory 4 SH

## Co-op Reflections

Complete one of the following courses:
MATH $3000 \quad$ Co-op and Experiential Learning 1 SH Reflection Seminar 1
MATH $4000 \quad$ Co-op and Experiential Learning $\quad 1$ SH Reflection Seminar 2

## Mathematics Electives

Complete two electives in the following range:
MATH 3001 to MATH 4899

## Required Physics

Complete the following two courses with corresponding labs:
PHYSICS 1
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
or PHYS $1151 \quad$ Physics for Engineering $1 \quad 4$ SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYSICS 2
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH
or PHYS 1155 Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS 11551 SH

## MATHEMATICS MAJOR GRADE REQUIREMENT

A grade of C or higher is required in all mathematics courses at level 3000 and lower and in MATH 4000.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses

MATHEMATICS MAJOR CREDIT REQUIREMENT
Complete 54 semester hours in the major.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000-level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Mathematics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## MATHEMATICS MAJOR REQUIREMENTS FOR BS

## Problem Solving

Complete the following course:

MATH $1365 \quad$| Introduction to Mathematical |
| :--- |
| Reasoning |

## Calculus

Complete the following three courses with a grade of C or higher:
MATH 1341
Calculus 1 for Science and Engineering
MATH 1342
Calculus 2 for Science and Engineering
MATH 2321
Calculus 3 for Science and 4 SH Engineering

Intermediate and Advanced Mathematics
Complete the following five courses:

| MATH 2331 | Linear Algebra | 4 SH |
| :--- | :--- | :--- |
| MATH 2351 | Ordinary Differential Equations | 4 SH |
| MATH 3081 | Probability and Statistics |  |
| MATH 3150 | Real Analysis | 4 SH |
| MATH 3175 | Group Theory | 4 SH |
| Co-op Reflections |  |  |
| Complete one of the following courses: |  |  |
| MATH 3000 | Co-op and Experiential Learning <br> Reflection Seminar 1 | 4 SH |
| MATH 4000 | Co-op and Experiential Learning <br> Reflection Seminar 2 | 1 SH |

## Mathematics Electives

Complete five electives in the following range:
MATH 3101 to MATH 4899

## Required Physics

Complete the following two courses with corresponding labs:

| PHYSICS 1 |  |  |
| :--- | :--- | :--- |
| PHYS 1161 | Physics 1 | 4 SH |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| or PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYSICS 2 |  |  |
| PHYS 1165 | Physics 2 | 4 SH |
| with PHYS 1166 | Lab for PHYS 1165 | 1 SH |
| or PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## MATHEMATICS MAJOR GRADE REQUIREMENT

A grade of C or higher is required in all mathematics courses at level 3000 and lower and in MATH 4000.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## MATHEMATICS MAJOR CREDIT REQUIREMENT

Complete 66 semester hours in the major.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Mathematics and Physics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## MATHEMATICS REQUIREMENTS

## Calculus

Complete the following three courses with a grade of C or higher:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH Engineering

## Intermediate and Advanced Mathematics

Complete the following five courses:

| MATH 2331 | Linear Algebra | 4 SH |
| :--- | :--- | :--- |
| MATH 2351 | Ordinary Differential Equations | 4 SH |
| MATH 3081 | Probability and Statistics | 4 SH |
| MATH 3150 | Real Analysis | 4 SH |
| MATH 3175 | Group Theory | 4 SH |

## Co-op Reflections

Complete one of the following courses:

| MATH 3000 | Co-op and Experiential Learning |
| :--- | :---: |
| Reflection Seminar 1 |  |
| MATH 4000 | Co-op and Experiential Learning |
|  | Reflection Seminar 2 |

## Mathematics Electives

Complete one mathematics course in the following range: MATH 3101 to MATH 4899

## PHYSICS REQUIREMENTS

## Physics 1

Complete one of the following courses with corresponding lab:

| PHYS 1161 | Physics 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |

## Physics 2

Complete one of the following courses with corresponding lab:
PHYS $1165 \quad$ Physics 2 SH
with PHYS 1166 Lab for PHYS 11651 SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Intermediate Physics

Complete the following three courses:

| PHYS 2303 | Modern Physics |
| :--- | :--- |
| PHYS 2305 | Thermodynamics and Statistical |
|  | Mechanics |
| PHYS 2371 | Electronics |

## Advanced Physics

Complete the following two courses:
PHYS $3600 \quad$ Advanced Physics Laboratory $1 \quad 4$ SH
PHYS $3602 \quad$ Electricity and Magnetism 4 SH

## Elective Courses

Complete two PHYS courses in the following range:
PHYS 3000 to PHYS 5999

## INTEGRATIVE COURSES

Complete the following two courses:
MATH $4545 \quad$ Fourier Series and PDEs 4 SH
or MATH 4525 Applied Analysis 4 SH
PHYS $3601 \quad$ Classical Dynamics 4 SH

## MATHEMATICS AND PHYSICS DUAL-MAJOR CREDIT REQUIREMENT <br> Complete 83 semester hours in the major. <br> GENERAL ELECTIVES <br> Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Biology and Mathematics

See page 80.

## BS in Computer Science and Mathematics

See page 269.

## BS in Economics and Mathematics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Environmental Geology and Mathematics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Mathematics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Minor in Mathematics

## REQUIRED COURSES

Complete the following two courses:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
Biology majors may substitute the following two courses:
MATH $1251 \quad$ Calculus and Differential Equations 4 SH for Biology 1
Calculus and Differential Equations 4 SH for Biology 2

## INTERMEDIATE-LEVEL COURSES

Complete two courses from the following list. Students may not take both MATH 2341 and MATH 2351 to satisfy this requirement:

MATH 2331
MATH 2341
or MATH 2351

Calculus 3 for Science and Engineering<br>Linear Algebra<br>Differential Equations and Linear Algebra for Engineering<br>Ordinary Differential Equations

## MATHEMATICS ELECTIVES

Complete two courses in the following range. Note: MATH 4000 may not be used for this requirement:
MATH 3001 to MATH 4699
GPA REQUIREMENT
2.000 GPA required in the minor

## MUSIC

www.music.neu.edu

Anthony P. De Ritis, PhD<br>Professor and Chair

Office: 351 Ryder Hall
Phone: 617.373.2440
Fax: 617.373.4129
E-mail contact: Allen G. Feinstein, Associate Academic Specialist and Head Advisor, a.feinstein@neu.edu

The Department of Music approaches the study of music from a global, multicultural, and multifaceted perspective. The department offers three concentrations in the context of a broad liberal arts program.

The music industry concentration is the first such undergraduate program in Boston. It is designed for students with an interest in fields such as artist management, the music products industry, the record industry, arts administration, contracting and legal issues, the recording process, and studio techniques. Developed in collaboration with Northeastern's College of Business Administration, the music industry concentration leads to a Bachelor of Science degree.

The music history and analysis concentration includes courses in Western classical music, American music, world music, music theory, and ear training. Students may combine this concentration with the minor in music performance, which entails an audition, private lessons, ensemble performance, and two recitals. They may also combine this concentration with a minor in music industry, ethnomusicology, or music theatre. The music history and analysis concentration leads to a Bachelor of Arts degree.

The music technology concentration teaches students to compose music using the newest electronic music technology, both hardware and software. Students are exposed to techniques
such as MIDI sequencing, digital and analog recording, sound design, audio for video, and the latest methods for delivering music over the Internet. Students also study composition for both acoustic and electronic instruments. The concentration includes a thorough background in the fundamentals of music, including music theory and history, and leads to a Bachelor of Science degree.

Through an exchange program, students may attend classes at the New England Conservatory of Music. Students also share an array of high-tech and multimedia equipment.

While some music courses are designed for music majors, the department also offers elective survey courses. Several of these courses fulfill the College of Arts and Sciences core curriculum requirement.

An extensive concert series offers a variety of performances by students, faculty, and guest artists. Students also have the opportunity to participate in active choral groups, bands, chamber ensembles, and the University orchestra.

## Transferring to the Major

Students who wish to transfer into the major must have a cumulative GPA of 2.750 overall. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the major. Additionally, students who wish to transfer into the music technology concentration must submit a portfolio of recent original work and complete an interview. Enrollment into this concentration is limited and highly selective. Please see the department for specific instructions.

## Academic Progression Standards

Students must maintain at least a B- average in all major courses. Students must complete all required music courses with grades of at least C. Students who fail to meet the above standards will be placed on departmental probation. Students who remain on probation for two consecutive semesters will be dropped from the major.

## BA in Music with Concentration in Music History and Analysis

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## MUSIC REQUIREMENTS FOR MUSIC HISTORY AND ANALYSIS CONCENTRATION

## Music Theory and Musicianship

Complete the following four courses. Music Theory and Musicianship should be taken concurrently, as indicated:
MUSC $1201 \quad$ Music Theory 1 SH
with MUSC 1241 Musicianship $1 \quad 1$ SH
MUSC 1202 Music Theory 24 SH
with MUSC 1242 Musicianship 21 SH

| MUSC 2303 | Music Theory 3 | 4 SH |
| :--- | :--- | :--- |
| with MUSC 2343 | Musicianship 3 | 1 SH |
| MUSC 2304 | Music Theory 4 | 4 SH |
| with MUSC 2344 | Musicianship 4 | 1 SH |

## Music History

Complete the following six courses. MUSC 3550 can be taken multiple times:
MUSC 2311
MUSC 2312
MUSC 2313
MUSC 3550
MUSC 3560
MUSC 4631

| Historical Traditions 1: America | 4 SH |
| :--- | :--- |
| Historical Traditions 2: Classical | 4 SH |
| Historical Traditions 3: World | 4 SH |
| Historical Traditions 4: Special Topics | 4 SH |
| Music since 1900 | 4 SH |
| Music History and Analysis Capstone | 4 SH |

Music Literature
Complete the following course:
MUSC 2308 Principles of Music Literature
Piano Class
Complete the following course:
MUSC 1205 Piano Class 1
Music Ensemble
Complete five music ensembles:
MUSC 1904 Chorus
MUSC 1905 Band
MUSC 1906 Orchestra
MUSC 1907 Wind Ensemble
MUSC 1911 Jazz Ensemble
MUSC 1912 Rock Ensemble
MUSC 1913 Blues/Rock Ensemble
MUSC 1914 Create Your Own Music
MUSC 1915 Chamber Ensembles
MUSC 1916 Electronic Music Ensemble
MUSC 1917 Jazz/Blues Choir

## EXPERIENTIAL EDUCATION

Complete one course in experiential education. Please see department for approved courses.

## MUSIC HISTORY AND ANALYSIS MAJOR CREDIT REQUIREMENT

Complete 57 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Music with Concentration in Music Industry

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## MUSIC INDUSTRY REQUIREMENTS

## Music Theory Requirement

Complete the following two courses:

| MUSI 1203 | Music Theory for Music Industry 1 | 4 SH |
| :--- | :--- | :--- |
| MUSI 1204 | Music Theory for Music Industry 2 | 4 SH |
| Music History |  |  |
| Complete the following four courses. MUSC 3550 can be taken <br> multiple times: |  |  |
| MUSC 2311 | Historical Traditions 1: America | 4 SH |
| MUSC 2312 | Historical Traditions 2: Classical | 4 SH |
| MUSC 2313 | Historical Traditions 3: World | 4 SH |
| MUSC 3550 | Historical Traditions 4: Special Topics | 4 SH |
| or MUSC 3560 | Music since 1900 | 4 SH |

Music Literature
Complete the following course:
MUSC $2308 \quad$ Principles of Music Literature 4 SH

## Music Ensemble

| Complete two music ensembles: |  |
| :--- | :--- |
| MUSC $1904 \quad$ Chorus | 1 SH |

MUSC 1905 Band 1 SH

MUSC 1906 Orchestra 1 SH
MUSC 1907 Wind Ensemble 1 SH
MUSC $1911 \quad$ Jazz Ensemble 1 SH
MUSC 1912 Rock Ensemble 1 SH
MUSC $1913 \quad$ Blues/Rock Ensemble 1 SH
MUSC $1914 \quad$ Create Your Own Music 1 SH
MUSC $1915 \quad$ Chamber Ensembles 1 SH
MUSC 1916 Electronic Music Ensemble 1 SH
MUSC 1917 Jazz/Blues Choir 1 SH
Music Industry
Complete the following three courses:

| MUSI 1230 | Music Industry 1 | 4 SH |
| :--- | :--- | :--- |
| MUSI 1231 | Music Industry 2 | 4 SH |
| MUSI 4601 | Seminar in Music Industry | 4 SH |

Music Industry Electives
Complete four of the following courses:
MUSC $3337 \quad 4$ SH
MUSI $2232 \quad$ Music Recording 14 SH
MUSI 2233 Music Production for Radio and Web 4 SH
MUSI $2330 \quad$ Performing Arts Administration 4 SH
MUSI 2331 Music Recording 2 SH
MUSI 2332 Music Publishing and Royalties 4 SH
MUSI 2341 Music Supervision 4 SH
MUSI $2540 \quad$ Special Topics in Music Industry 4 SH
MUSI $3332 \quad 4$ SH
MUSI 3333 The Record Industry 4 SH
MUSI $3334 \quad 4$ SH
MUSI 3335 Copyright Law for Musicians 4 SH

| MUSI 3336 | Computer Applications in Music <br> Business | 4 SH |
| :--- | :--- | :---: |
| MUSI 3338 | Music Industry Marketing and <br> Promotion | 4 SH |
| MUSI 3340 | Concert Promotion and Venue <br> Management | 4 SH |
| MUSI 4530 | Music Entrepreneurship | 4 SH |
| MUST 1220 | Music and Technology 1 | 4 SH |
| MUST 1221 | Music and Technology 2 | 4 SH |
| MUST 3421 | Digital Audio Processing | 4 SH |

BUSINESS COURSE REQUIREMENTS

## Economics

Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## Accounting

Complete the following course:
ACCT $1209 \quad$ Financial Accounting and Reporting 4 SH

## Business Electives

Complete two business courses in the following subject areas:
ACCT, BUSN, ENTR, FINA, HRMG, INTB, MECN, MGMT, MGSC, MISM, MKTG, ORGB, SABU, or SCHM

## EXPERIENTIAL LEARNING FOR MUSIC INDUSTRY

Complete the following course:
MUSI 4601 Seminar in Music Industry 4 SH
MUSIC INDUSTRY MAJOR CREDIT REQUIREMENT
Complete 78 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Music with Concentration in Music Technology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL MUSIC REQUIREMENTS

## Music Theory and Musicianship

Complete the following five courses. Music Theory and Musicianship should be taken concurrently, as indicated:
MUSC 1201 Music Theory 14 SH
with MUSC 1241 Musicianship 1 SH
MUSC 1202 Music Theory 24 SH
with MUSC 1242 Musicianship 21 SH
MUSC 2303 Music Theory 3 SH
with MUSC 2343 Musicianship 31 SH

| MUSC 2304 | Music Theory 4 | 4 SH |
| :---: | :---: | :---: |
| with MUSC 2344 | Musicianship 4 | 1 SH |
| MUSC 3541 | Music Analysis Seminar | 4 SH |
| Music History |  |  |
| Complete the following five courses: |  |  |
| MUSC 2308 | Principles of Music Literature | 4 SH |
| MUSC 2311 | Historical Traditions 1: America | 4 SH |
| MUSC 2312 | Historical Traditions 2: Classical | 4 SH |
| MUSC 2313 | Historical Traditions 3: World | 4 SH |
| MUSC 3560 | Music since 1900 | 4 SH |
| Music Composition |  |  |
| Complete the following three courses: |  |  |
| MUSC 1250 | Instrumentation and Notation | 4 SH |
| MUST 3420 | Music Composition Seminar 1 | 4 SH |
| MUST 3422 | Music Composition Seminar 2 | 4 SH |

## Composition Lessons

Complete the following (repeatable) course six times:
MUSC 1903 Composition Lessons 1 SH

## Ensemble

| Complete two music ensembles: |  |
| :--- | :--- |
| MUSC $1904 \quad$ Chorus | 1 SH |

MUSC 1905 Band 1 SH
MUSC 1906 Orchestra 1 SH

MUSC 1907 Wind Ensemble 1 SH
MUSC 1911 Jazz Ensemble 1 SH
MUSC 1912 Rock Ensemble 1 SH
MUSC $1913 \quad$ Blues/Rock Ensemble 1 SH
MUSC $1914 \quad$ Create Your Own Music 1 SH
MUSC $1915 \quad$ Chamber Ensembles 1 SH
MUSC 1916 Electronic Music Ensemble 1 SH
MUSC 1917 Jazz/Blues Choir 1 SH

## MUSIC TECHNOLOGY REQUIREMENTS

## Music Technology

Complete the following four courses:

| MUST 1220 | Music and Technology 1 | 4 SH |
| :--- | :--- | :--- |
| MUST 1221 | Music and Technology 2 | 4 SH |
| MUST 2315 | History of Electronic Music | 4 SH |
| MUST 3421 | Digital Audio Processing | 4 SH |

Electronic Composition and Performance
Complete the following three courses:
MUST $4520 \quad$ Interactive Real-Time Performance 4 SH
MUST $4610 \quad$ Composition for Electronic 4 SH
Instruments
MUST $4611 \quad$ Music Technology Capstone/Senior 4 SH
Recital

## Music Technology Electives

Complete one course from the following list, or consult your advisor for approval of other acceptable courses:

| ARTD 2380 | Video Basics | 4 SH |
| :--- | :--- | :--- |
| ARTF 1122 | 2D Foundation | 4 SH |
| ARTF 2224 | Interactive Tools | 1 SH |
| IDSC 4699 | Advanced Television Production | 4 SH |


| MMST 3350 | Programming for Multimedia | 4 SH |
| :--- | :--- | :--- |
| MMST 4400 | Hypermedia | 4 SH |
| MUSI 1230 | Music Industry 1 | 4 SH |
| MUSI 2233 | Music Production for Radio and Web | 4 SH |
| MUSI 3336 | Computer Applications in Music | 4 SH |
|  | $\quad$ Business |  |
| MUST 2320 | Sound Design | 4 SH |
| MUST 2540 | Special Topics in Music Technology | 4 SH |

## EXPERIENTIAL EDUCATION

Complete one course in experiential education. Please see department for approved courses.

MUSIC TECHNOLOGY CREDIT REQUIREMENTS
Complete 96 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Music with Concentration in Music Technology

See page 269.

## BS in Interactive Media and Music with Concentration in Music Technology

See page 102.

## Minor in General Music

## MUSIC THEORY AND MUSICIANSHIP

Complete the following two courses. Music Theory and Musicianship should be taken concurrently, as indicated:
MUSC 1201 Music Theory 14 SH
with MUSC 1241 Musicianship $1 \quad 1$ SH
MUSC 1202 Music Theory 24 SH
with MUSC 1242 Musicianship 21 SH

## PRINCIPLES OF MUSIC LITERATURE

Complete the following course:
MUSC 2308 Principles of Music Literature

## MUSIC HISTORY ELECTIVE

Complete one course from the following list:
MUSC $2311 \quad$ Historical Traditions 1: America
MUSC $2312 \quad$ Historical Traditions 2: Classical
MUSC $2313 \quad$ Historical Traditions 3: World
MUSC $3550 \quad$ Historical Traditions 4: Special Topics
MUSC 3560
MUST 2315
Music since 19004 SH
History of Electronic Music 4 SH

## MUSIC ELECTIVE

Complete one course from the music department.
GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in Ethnomusicology

## REQUIRED COURSES

Complete the following three courses. MUSC 1201 and
MUSC 1241 should be taken concurrently:
MUSC 1201 Music Theory 14 SH
with MUSC 1241 Musicianship $1 \quad 1 \mathrm{SH}$
MUSC $2308 \quad$ Principles of Music Literature 4 SH
MUSC $3350 \quad$ Introduction to Ethnomusicology 4 SH
Music industry majors may substitute the following course for MUSC 1201:
MUSI $1203 \quad$ Music Theory for Music Industry $1 \quad 4$ SH
ETHNOMUSICOLOGY ELECTIVES
Complete three of the following courses:

| MUSC 1104 | Survey of African-American Music | 4 SH |
| :--- | :--- | :--- |
| MUSC 1127 | Introduction to World Music | 4 SH |
| MUSC 1128 | Music of Africa | 4 SH |
| MUSC 1130 | Music of Asia | 4 SH |
| MUSC 1131 | Music of Latin America and the <br>  <br> MUSC 1132 | 4 SH |
|  | Casibbean |  |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Music Industry

MUSIC THEORY AND LITERATURE
Complete the following two courses:

| MUSC 1101 | Introduction to Music | 4 SH |
| :--- | :--- | :--- |
| or MUSC 2308 | Principles of Music Literature | 4 SH |
| MUSI 1203 | Music Theory for Music Industry 1 | 4 SH |
| or MUSC 1201 | Music Theory 1 | 4 SH |
| or MUSC 1119 | Fundamentals of Western Music | 4 SH |
|  | Theory |  |

## MUSIC INDUSTRY

Complete the following two courses:

| MUSI 1230 | Music Industry 1 | 4 SH |
| :--- | :--- | :--- |
| MUSI 1231 | Music Industry 2 | 4 SH |

MUSIC INDUSTRY ELECTIVES
Complete two courses from the following list:
MUST $1220 \quad$ Music and Technology 1 SH

MUST 1221 Music and Technology 2 SH
MUSI 2232 Music Recording 1 SH
MUSI 2233 Music Production for Radio and Web 4 SH
MUSI $2330 \quad$ Performing Arts Administration 4 SH
MUSI 2331 Music Recording 2 SH
MUSI 2332 Music Publishing and Royalties 4 SH

MUSI 2341
MUSI 2540
MUSI 3332
MUSI 3333
MUSI 3334
MUSI 3335
MUSI 3336

MUSC 3337
MUSI 3338
Music Supervision
Special Topics in Music Industry
4 SH
4 SH

MUSI 3340

## MUSI 4530

4 SH
4 SH
4 SH
4 SH
4 SH

4 SH
Artist Management
The Record Industry
Music Products Industry
Copyright Law for Musicians
Computer Applications in Music Business
Writing about Music Promotion
Concert Promotion and Venue
4 SH
Management
Music Entrepreneurship

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Music Performance

Restricted to music majors. Requires audition for acceptance into the minor.

## MUSIC THEORY AND MUSICIANSHIP

Complete the following four courses. Music Theory and Musicianship should be taken concurrently, as indicated. Music industry majors take program-specific music theory courses, as outlined below. A grade of C or better is required in music theory courses:

| MUSC 1201 | Music Theory 1 | 4 SH |
| :--- | :--- | :--- |
| with MUSC 1241 | Musicianship 1 | 1 SH |
| MUSC 1202 | Music Theory 2 | 4 SH |
| with MUSC 1242 | Musicianship 2 | 1 SH |
| MUSC 2303 | Music Theory 3 | 4 SH |
| with MUSC 2343 | Musicianship 3 | 1 SH |
| MUSC 2304 | Music Theory 4 | 4 SH |
| with MUSC 2344 | Musicianship 4 | 1 SH |

Music Industry Majors Only
MUSI 1203 Music Theory for Music Industry 14 SH
with MUSC 1241 Musicianship $1 \quad 1$ SH
MUSI $1204 \quad$ Music Theory for Music Industry 24 SH
with MUSC 1242 Musicianship 21 SH
MUSC 2303 Music Theory 3 SH
with MUSC 2343 Musicianship 3
MUSC 2304 Music Theory 4
with MUSC 2344 Musicianship 4

## PERFORMANCE PRACTICE

Complete the following course:
MUSC 4621 Seminar in Performance Practice 4 SH
MUSIC LESSONS
Complete the following (repeatable) course three times:
MUSC 1901 Music Lessons 1

MUSIC RECITALS
Complete the following two courses:
MUSC 3410 Recital 1 SH

MUSC 4622 Recital 21 SH
MUSIC ENSEMBLE
Complete seven music ensembles:

| MUSC 1904 | Chorus | 1 SH |
| :--- | :--- | :--- |
| MUSC 1905 | Band | 1 SH |
| MUSC 1906 | Orchestra | 1 SH |
| MUSC 1907 | Wind Ensemble | 1 SH |
| MUSC 1911 | Jazz Ensemble | 1 SH |
| MUSC 1912 | Rock Ensemble | 1 SH |
| MUSC 1913 | Blues/Rock Ensemble | 1 SH |
| MUSC 1914 | Create Your Own Music | 1 SH |
| MUSC 1915 | Chamber Ensembles | 1 SH |
| MUSC 1916 | Electronic Music Ensemble | 1 SH |
| MUSC 1917 | Jazz/Blues Choir | 1 SH |

GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in Musical Theatre

See page 203.

## PHILOSOPHY AND RELIGION

www.philosophy.neu.edu

Susan M. Setta, PhD
Associate Professor and Chair

Office: 371 Holmes Hall
Phone: 617.373.3636
Fax: 617.373.4359
E-mail contact: Susan M. Setta, Associate Professor and Chair, s.setta@neu.edu
$\mathbf{P}_{\text {hilosophy addresses questions and theories related to morality, }}$ society, religion, and the natural and social sciences. The study of philosophy challenges students to examine, through critical reflection, their beliefs in many areas.

Courses aim to provide students with an understanding of the methods and traditions of philosophical and religious thought. Through readings, discussion, and writing, students examine questions concerning the nature and validity of religious beliefs, moral judgments, political ideas, and scientific theories, as well as questions about values and social policy in such areas as law, medicine, and technology. Course work in philosophy can strengthen the student's work in other areas.

The program in religion offers students the opportunity to acquire an understanding of religious experience within its social, historical, literary, and political context. Students study specific religious traditions such as Judaism, Islam, and Hinduism, and
using a comparative approach they explore themes across faith traditions. Through the major, a student has the opportunity to study a range of religions and a variety of methods of understanding the key dimensions of religious life.

## Transferring to the Major

A minimum cumulative GPA of 2.000 is required to transfer to the major. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

A minimum cumulative GPA of 2.000 is required to remain in good standing in the major.

## The Philosophy Major

Philosophy majors enter diverse careers, ranging from collegelevel teaching to law and business. The program strives to help students sharpen their critical abilities. The department offers three ways to major in philosophy: the standard major, the concentration in law and ethics, and the concentration in religious studies.

## BA/BS in Philosophy

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA <br> (BA STUDENTS ONLY)

See page 41 for requirement list.

## CONCENTRATION

Complete the philosophy generalist requirements, the concentration in law and ethics, or the concentration in religious studies.

## Philosophy Generalist

## PHILOSOPHY REQUIRED COURSES

Complete the following three courses:
PHIL 1115 Introduction to Logic 4 SH
or PHIL 1215 Symbolic Logic 4 SH
PHIL 2325 Ancient Philosophy 4 SH
PHIL 2330 Modern Philosophy
4 SH
ADVANCED PHILOSOPHY ELECTIVE
Complete one course from the following list:
PHIL $3435 \quad$ Moral Philosophy
4 SH
PHIL $4500 \quad$ Theory of Knowledge
PHIL 4505 Metaphysics
4 SH

PHIL 4535
PHILOSOPHY SEMINAR
Complete one philosophy seminar:
PHIL $4605 \quad$ Advanced Seminar: Spinoza 4 SH
PHIL 4901 Topics in Philosophy Seminar 4 SH
PHIL $4902 \quad$ Great Philosophers Seminar 4 SH
RELS 4547 Seminar: Apocalypticism 4 SH

| RELS 4606 | Seminar: Theories and Methods in <br> Religious Studies | 4 SH |
| :--- | :---: | :---: |
| RELS 4903 $\quad$ Seminar in Religion | 4 SH |  |
| ADDITIONAL ELECTIVES |  |  |
| Complete four additional electives in philosophy. |  |  |

## Concentration in Law and Ethics

PHILOSOPHY REQUIRED COURSES
Complete the following four courses:
PHIL 1115 Introduction to Logic 4 SH
or PHIL 1215 Symbolic Logic 4 SH
PHIL $2325 \quad$ Ancient Philosophy 4 SH
PHIL $2330 \quad$ Modern Philosophy 4 SH
PHIL $3435 \quad$ Moral Philosophy 4 SH
PHILOSOPHY SEMINAR
Complete one course from the following list:
PHIL $4605 \quad$ Advanced Seminar: Spinoza 4 SH
PHIL 4901 Topics in Philosophy Seminar 4 SH
PHIL $4902 \quad$ Great Philosophers Seminar 4 SH
RELS 4547 Seminar: Apocalypticism 4 SH
RELS 4606 Seminar: Theories and Methods in 4 SH Religious Studies
RELS $4903 \quad$ Seminar in Religion 4 SH
ETHICS-RELATED ELECTIVES
Complete two courses from the following list:
PHIL 1102 Introduction to Contemporary Moral 4 SH
Issues
PHIL $1130 \quad$ Ethics: East and West 4 SH
PHIL $1145 \quad$ Technology and Human Values 4 SH
PHIL $1165 \quad$ Moral and Social Problems in Health 4 SH
Care
PHIL $1170 \quad$ Business Ethics 4 SH
PHIL $1180 \quad 4$ SH
PHIL $2301 \quad$ Philosophical Problems of Law and 4 SH Justice
PHIL $2302 \quad$ Philosophical Problems of War and 4 SH
Peace
PHIL $2303 \quad$ Social and Political Philosophy 4 SH
PHIL $2304 \quad$ Philosophical Problems of Economic 4 SH
Justice
PHIL $3480 \quad$ Environmental Philosophy 4 SH
RELS $1272 \quad$ Ethics in the World's Religions 4 SH
PHILOSOPHY ELECTIVE
Complete one elective course in philosophy.
LAW-RELATED ELECTIVES
Complete two courses from social science departments. These courses are to be chosen in consultation with the department:

| AFAM 2337 | African-American History <br> before 1900 | 4 SH |
| :--- | :--- | :--- |
| AFAM 2339 | Analysis of American Racism | 4 SH |
| AFAM 2360 | Politics of Poverty | 4 SH |
| AFAM 4549 | Public Policy and Black America <br> AFAM 4639Globalism, Racism, and Human <br> Rights | 4 SH |
|  | 4 SH |  |


| AFRS 3460 | Contemporary Government and Politics in Africa | 4 SH |
| :---: | :---: | :---: |
| CRIM 2100 | Criminal Due Process | 4 SH |
| CRIM 2200 | Criminology | 4 SH |
| CRIM 3200 | Juvenile Justice | 4 SH |
| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4110 | Legal Philosophy | 4 SH |
| CRIM 4610 | Youth Gangs | 4 SH |
| CRIM 4630 | Political Crime and Terrorism | 4 SH |
| CRIM 4670 | Comparative Criminal Justice | 4 SH |
| ECON 1270 | Economic Status of Ethnic Minorities | 4 SH |
| ECON 3440 | Public Finance | 4 SH |
| ECON 3442 | Money and Banking | 4 SH |
| ECON 3461 | Government and Business | 4 SH |
| ECON 3520 | History of Economic Thought | 4 SH |
| ENGL 3325 | Rhetoric of Law | 4 SH |
| HIST 1203 | Constructing the Modern Family | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1212 | History of Race | 4 SH |
| HIST 1213 | History of Violence | 4 SH |
| HIST 2335 | American Constitution 1: 1783-1865 | 4 SH |
| HIST 2336 | American Constitution 2: 1865Present | 4 SH |
| HIST 2337 | African-American History before 1900 | 4 SH |
| HIST 2338 | African-American History since 1900 | 4 SH |
| HIST 2340 | Cultural History of the U.S. | 4 SH |
| HIST 3430 | Political Reform in America | 4 SH |
| INTL 1101 | Globalization and International Affairs | 4 SH |
| INTL 3400 | International Conflict and Negotiation | 4 SH |
| JRNL 3550 | Law of the Press | 4 SH |
| MMST 4160 | Business, Law, and Multimedia | 4 SH |
| POLS 2357 | Growth and Decline of Cities and Suburbs | 4 SH |
| POLS 3302 | Judicial Process and Behavior | 4 SH |
| POLS 3324 | Law and Society | 4 SH |
| POLS 4500 | U.S. Constitutional Law | 4 SH |
| POLS 4505 | U.S. Civil Liberties | 4 SH |
| POLS 4615 | Seminar in Public Law | 4 SH |
| POLS 4905 | Moot Court | 4 SH |
| SOCL 1205 | Law and Social Justice | 4 SH |
| SOCL 1241 | Sociology of Violence | 4 SH |
| SOCL 1245 | Sociology of Poverty | 4 SH |
| SOCL 1246 | Environment and Sociology | 4 SH |
| SOCL 2358 | Current Issues in Cities and Suburbs | 4 SH |
| SOCL 3401 | Social Policy and Intervention | 4 SH |
| SOCL 3402 | Feminist Perspectives on Society | 4 SH |
| SOCL 3403 | American Society | 4 SH |
| SOCL 3406 | Class, Crime, and the Legal System | 4 SH |
| SOCL 4518 | Law and Social Issues | 4 SH |


| SOCL 4522 | Political Ecology and Environmental <br> Justice | 4 SH |
| :--- | :--- | :--- |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| URBS 2358 | Current Issues in Cities and Suburbs | 4 SH |

Concentration in Religious Studies
PHILOSOPHY REQUIRED COURSES
Complete the following four courses:
PHIL 1115 Introduction to Logic 4 SH
or PHIL 1215 Symbolic Logic 4 SH
PHIL 2325 Ancient Philosophy 4 SH
PHIL $2330 \quad$ Modern Philosophy 4 SH
PHIL 3435 Moral Philosophy 4 SH
PHILOSOPHY SEMINAR
Complete one philosophy seminar:

| PHIL 4605 | Advanced Seminar: Spinoza | 4 SH |
| :--- | :--- | :--- |
| PHIL 4901 | Topics in Philosophy Seminar | 4 SH |
| PHIL 4902 | Great Philosophers Seminar | 4 SH |
| RELS 4547 | Seminar: Apocalypticism | 4 SH |
| RELS 4606 | Seminar: Theories and Methods in | 4 SH |
|  | $\quad$ Religious Studies |  |
| RELS 4903 | Seminar in Religion | 4 SH |
| RELS 4904 | Major Figures in Religious Studies | 4 SH |
| RELS 4906 | Topics in Religious Studies | 4 SH |

RELIGIOUS STUDIES COURSES
Complete three elective courses. See department for an approved list.

## PHILOSOPHY ELECTIVE

Complete one elective course in philosophy.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## PHILOSOPHY MAJOR CREDIT REQUIREMENT

Complete 32 semester hours in the major.
UPPER-DIVISION ELECTIVES
Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## Major in Religious Studies

The religious studies major is designed to introduce students to a wide variety of religious experience and expression in the world. Through this major, students are exposed to the basic features of the world's religions and the ethical systems that accompany them and explore diverse methodological approaches to the study of religions in general. This major is designed to give students the expertise to prepare them for graduate school in religious studies or to enhance their abilities in any career that requires a liberal arts education.

## BA in Religious Studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## RELIGIOUS STUDIES MAJOR REQUIREMENTS

## Religious Areas

Complete one course from each of the following five religious areas. Note: A course cannot be used to meet the requirement for more than one area.

## COMPARATIVE RELIGION

| PHIL 1130 | Ethics: East and West | 4 SH |
| :--- | :--- | :--- |
| RELS 1230 | Sound, Music, and Religion | 4 SH |

RELS 1270 Sur

RELS 1272 Ethics in the World’s Religions 4 SH
RELS 1275 Eastern Religions 4 SH
RELS 2300 Mysticism 4 SH
RELS $3390 \quad$ Cults and Sects 4 SH
ANCIENT MEDITERRANEAN
AND AFRICAN WORLD TRADITIONS
PHIL 2327 Medieval Western Philosophy 4 SH
PHIL $3445 \quad$ Philosophy of Religion 4 SH
RELS $1150 \quad 4$ SH
RELS 1271 Sex in Judaism, Christianity, and 4 SH Islam
RELS 1280 Islam 4 SH
RELS 1285 Jewish Religion and Culture 4 SH
RELS 1287 Modern Judaism 4 SH
RELS 2315 Adam and Eve and Their Interpreters 4 SH
RELS $3390 \quad$ Cults and Sects 4 SH
ASIAN TRADITIONS
RELS 1272 Ethics in the World's Religions 4 SH
RELS 1276 Indian Religions 4 SH
RELS $1290 \quad$ Chinese Philosophy and Religion 4 SH
RELS $2394 \quad$ Chinese Buddhism 4 SH
RELS 2395 Japanese Buddhism 4 SH
RELS 3393 Asian Religions in the United States 4 SH
RELS 3398 Religion and Culture in Indian Cinema 4 SH
RELS $4545 \quad$ Religion and Politics in South Asia 4 SH

RELIGION AND CULTURE

| RELS 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions | 4 SH |
| :---: | :---: | :---: |
| RELS 1220 | The Meaning of Death | 4 SH |
| RELS 1230 | Sound, Music, and Religion | 4 SH |
| RELS 1271 | Sex in Judaism, Christianity, and Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |
| RELS 2315 | Adam and Eve and Their Interpreters | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |

## RELIGIOUS TEXTS

RELS $1150 \quad 4$ SH
RELS 2315 Adam and Eve and Their Interpreters 4 SH
RELS 2394 Chinese Buddhism 4 SH
RELS 2395 Japanese Buddhism 4 SH
RELS 33954 SH

## Required Courses

Complete one of the following courses:

| RELS 4606 | Seminar: Theories and Methods in <br> Religious Studies | 4 SH |
| :--- | :--- | :--- |
| RELS 4904 | Major Figures in Religious Studies <br> RELS 4906 | 4 SH |
| Topics in Religious Studies | 4 SH |  |

## Religious Studies Electives

Complete three religious studies electives. Two electives must be above the 2000-level.

## EXPERIENTIAL EDUCATION

Complete one course in experiential education. Please see department for approved courses.

## RELIGIOUS STUDIES MAJOR CREDIT REQUIREMENT <br> Complete 36 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## Dual Major in Jewish Studies and Religion

The dual major in Jewish studies and religion offers students an integrated program of study of two naturally complementary fields. Study of Judaism as a religion, which forms an important core of the interdisciplinary field of Jewish studies, is greatly enhanced by broad familiarity with the world's religious traditions; conversely, in-depth knowledge of Jewish history, identity, and culture provides students of religion with valuable insight into the ways in which religion interacts with a wide variety of forces to shape the experiences of the adherents of a
particular faith. The dual major is designed to enable students to understand the history, culture, and religion of the Jewish people; analyze and apply theoretical understanding to the interaction between religious, social, and historical factors that have shaped the experiences of the Jewish people; and demonstrate fluency in understanding the major religious traditions of the world.

Students in the dual major receive an interdisciplinary introduction to the field of Jewish studies, followed by courses in Jewish religion and thought, Jewish history, and Jewish arts and culture; electives allow for exploration of Northeastern's Jewish studies offerings, which focus particularly on modern Jewish life and identity. Religion course work provides a grounding in the Bible, central to understanding Judaism and other Western religions, followed by broader course work in world religion and upper-level thematic courses. Capstone courses bring the two fields closely together by integrating the study of Judaism into the broader study of religion or the study of religion into the study of the broader Jewish experience. Students fulfill their language requirement with Hebrew, and they are encouraged to fulfill their experiential education requirement through study abroad or an internship or co-op in a Jewish organization.

The dual major in Jewish studies and religion is designed to prepare students for graduate work in Jewish studies, religion, or many of the other disciplines that make up Jewish studies or for work within the Jewish community or in communal organizations associated with other religions. It is an ideal foundation for the integrative five-year program through which students can earn a BA from Northeastern and an MA or MJEd from Hebrew College.

## BA in Jewish Studies and Religion

See page 154.

## BA in Cinema Studies and Philosophy

See page 94.

## BA in Environmental Studies and Philosophy

See page 124.

## BS in Physics and Philosophy

See page 183.

## Minor in Philosophy

## REQUIRED COURSES

Complete the following two courses:
PHIL 2325 Ancient Philosophy 4 SH
PHIL $2330 \quad 4$ SH

## ELECTIVE COURSES

Complete three philosophy courses.

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Ethics

## REQUIRED COURSES

Complete four courses from the following list. Two courses must be at the 2000-level or above:

| PHIL 1102 | Introduction to Contemporary Moral Issues | 4 SH |
| :---: | :---: | :---: |
| PHIL 1130 | Ethics: East and West | 4 SH |
| PHIL 1145 | Technology and Human Values | 4 SH |
| PHIL 1165 | Moral and Social Problems in Health Care | 4 SH |
| PHIL 1170 | Business Ethics | 4 SH |
| PHIL 1180 | Environmental Ethics | 4 SH |
| PHIL 2301 | Philosophical Problems of Law and Justice | 4 SH |
| PHIL 2302 | Philosophical Problems of War and Peace | 4 SH |
| PHIL 2303 | Social and Political Philosophy | 4 SH |
| PHIL 2304 | Philosophical Problems of Economic Justice | 4 SH |
| PHIL 3435 | Moral Philosophy | 4 SH |
| PHIL 3465 | Advanced Medical Ethics | 4 SH |
| PHIL 3480 | Environmental Philosophy | 4 SH |
| RELS 1272 | Ethics in the World's Religions | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Religious Studies

## REQUIRED COURSES

Complete four of the following courses:
RELS $1150 \quad 4$ SH
RELS 12754 SH
RELS 1280 Islam 4 SH
RELS 2394 Chinese Buddhism 4 SH
RELS 2395 Japanese Buddhism 4 SH
RELS $3390 \quad$ Cults and Sects 4 SH

## ELECTIVE COURSE

Complete one RELS course.

## GPA REQUIREMENT

2.000 GPA required in the minor

## PHYSICS

## www.physics.neu.edu

SRinivas Sridhar, PhD
College of Arts and Sciences Distinguished Professor and Chair

Office: 111 Dana Research Center
Phone: 617.373.2902
Fax: 617.373.2943
E-mail contact: physics@neu.edu

Physics examines the fundamental principles that govern natural phenomena, ranging in scale from collisions of subatomic particles, through the behavior of solids, liquids, and biomolecules, to exploding stars and colliding galaxies. The program aims to help students experience the intellectual stimulation of studying physics and the excitement of frontline research; understand the basic principles and techniques of physics-related careers; and prepare for graduate study in physics or related fields.

The department offers several degree programs: BS in physics, applied physics, or biomedical physics; BS in applied physics/MS in electrical engineering; MS and PhD in physics. Four levels of courses are offered: descriptive courses for nonscience majors with limited mathematical background; general survey courses for students in scientific and engineering fields; advanced courses primarily intended for physics, biomedical physics, and applied physics majors; and highly advanced courses primarily intended for prospective graduate students.

A BS, MS, or a PhD degree in physics offers many career opportunities in industrial, government, and academic hightechnology laboratories as scientists or engineers. Many physics majors pursue advanced degrees in physics and related fields.

BS students have the option of majoring in several programs in addition to the general physics program, including programs in applied physics and biomedical physics. These programs are expanding as the need for students trained in biotechnology and nanotechnology is rapidly growing.

The biomedical physics program seeks to understand the role of physical processes occurring on molecular, cellular, or macroscopic scales, in vital biological functions, ranging from the interaction of chemicals with DNA, to the extraction of oxygen from red blood cells, to the generation of complex electrical signals in the brain and nervous system. Biomedical physics also examines how physical principles and modern instrumentation techniques can be used in medical applications.

The program in applied physics promotes study of physical processes at nanoscale dimensions. This field has many applications, including developing new green technologies, such as improving solar light-to-electricity conversion; using sunlight to split water into hydrogen and oxygen for fuel cell technologies; building future devices for information technology such as
quantum computers; and many medical applications of nanoscience to improve disease diagnosis and treatment.

An additional option is the BS/MS program in applied physics and engineering, jointly sponsored by the Department of Physics and the Department of Electrical and Computer
Engineering (ECE). Students are offered strong interdisciplinary training in physics, math, and electrical engineering to achieve a BS degree in applied physics and take graduate courses in ECE in the fourth and fifth years that lead directly to an MS degree in electrical engineering.

Students also have the opportunity to combine physics with another discipline through a dual major. Current dual majors with physics include chemical engineering, computer science, electrical engineering, environmental geology, geology, mathematics, and philosophy.

## Transferring to the Major

Same as college standards. Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Students may not continue as physics majors beyond the end of the sophomore year unless the following courses are successfully completed:
PHYS 1161 Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH
PHYS 2303 Modern Physics 4 SH
PHYS 2305 Thermodynamics and Statistical 4 SH Mechanics
PHYS 2371 Electronics 4 SH
MATH $1341 \quad$ Calculus 1 for Science 4 SH
and Engineering
MATH $1342 \quad$ Calculus 2 for Science 4 SH
and Engineering
MATH $2321 \quad$ Calculus 3 for Science 4 SH
and Engineering
MATH $2351 \quad$ Ordinary Differential Equations 4 SH
or equivalent courses. Note: The following courses may be taken in place of PHYS 1161, PHYS 1162, PHYS 1165, and
PHYS 1166:
PHYS $1151 \quad$ Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH
A minimum GPA of 2.500 must be achieved in these courses to remain in the major.

Students may not graduate from the physics program unless all required physics, math, and science courses are passed with a GPA of 2.500 or more. Further, no more than two grades of $\mathrm{D}+$ or lower may be counted toward the graduation requirements.

## BS in Physics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR PHYSICS

## Mathematics

| Complete the following six courses: |  |
| :--- | :---: |
| MATH 1341 | Calculus 1 for Science and |
|  | Engineering |
| MATH 1342 | Calculus 2 for Science and |
|  | Engineering |
| MATH 2321 | Calculus 3 for Science and |
|  | Engineering |
| MATH 2331 | Linear Algebra |
| MATH 2351 | Ordinary Differential Equations |
| MATH 3081 | Probability and Statistics |

## General Engineering

Complete the following engineering course:

GE $1111 \quad$| Engineering Problem Solving and |
| :---: |
| Computation |

## Chemistry

Complete the following chemistry course with corresponding lab:
CHEM 1211 General Chemistry 14 SH
with CHEM 1212 Lab for CHEM 12111 SH

## Technical Electives

Complete 8 semester hours of intermediate or advanced courses
from the following list:
BIOL 2301 to BIOL 5999
CHEM 2311 to CHEM 5999
CHME 2001 to CHME 4699
CIVE 2001 to CIVE 4699
CS 2990 to CS 4900
EECE 2001 to EECE 5999
ENVR 2300 to ENVR 5999
IE 2001 to IE 4699
MATH $2280 \quad$ Statistics and Software 4 SH
MATH 2285 Introduction to Multisample Statistics 4 SH
MATH 2321 to MATH 5999
ME 2001 to ME 4699
PHYS 2303 to PHYS 5999

## PHYSICS MAJOR REQUIREMENTS

## Introductory Physics

Complete a lecture/lab set for Physics 1 and for Physics 2:
PHYSICS 1
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
or PHYS 1151 Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS 11511 SH

PHYSICS 2
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH
or PHYS 1155 Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Intermediate Physics

Complete the following three courses:
PHYS 2303 Modern Physics 4 SH
PHYS 2305 Thermodynamics and Statistical 4 SH
Mechanics
PHYS $2371 \quad$ Electronics 4 SH
Advanced Physics
Complete the following five courses:

| PHYS 3600 | Advanced Physics Laboratory 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 3601 | Classical Dynamics | 4 SH |
| PHYS 3602 | Electricity and Magnetism | 4 SH |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 SH |
| PHYS 5115 | Quantum Mechanics | 4 SH |

Elective Course
Complete one course from the following list:
MATH $4606 \quad$ Mathematical and Computational 4 SH
Methods for Physics
PHYS $3500 \quad$ Physics with Computers 4 SH
PHYS $4606 \quad$ Mathematical and Computational 4 SH
PHYS $4621 \quad$ Biological Physics $1 \quad 4 \mathrm{SH}$
PHYS 4623 Medical Physics 4 SH
PHYS 4651 Medical Physics Seminar 14 SH
PHYS 4652 Medical Physics Seminar 24 SH
PHYS 5113 Introduction to Particle and Nuclear 4 SH Physics
PHYS $5260 \quad$ Introduction to Nanoscience and 4 SH
Nanotechnology

## Experiential Education

Complete the following course:
PHYS $4996 \quad$ Experiential Education Directed Study 4 SH

## Senior Capstone

Complete the following course:
PHYS $5318 \quad$ Principles of Experimental Physics 4 SH
PHYSICS MAJOR CREDIT REQUIREMENT
Complete 95 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Applied Physics

## NU CORE REQUIREMENTS

See page 26 for requirement list.
BREADTH COURSES FOR APPLIED PHYSICS
Mathematics

| Complete the following four courses: |  |
| :--- | :--- |
| MATH 1341 | Calculus 1 for Science and |
|  | Engineering |
| MATH 1342 | Calculus 2 for Science and |
|  | Engineering |
| MATH 2321 | Calculus 3 for Science and |
|  | Engineering |
| MATH 2351 | Ordinary Differential Equations |

## General Engineering

Complete the following engineering course:

GE $1111 \quad$| Engineering Problem Solving and |
| :--- |
| Computation |

## Chemistry

Complete one introductory chemistry course with corresponding lab:
CHEM $1211 \quad$ General Chemistry 14 SH
with CHEM 1212 Lab for CHEM $1211 \quad 1$ SH

## Technical Electives

Complete 16 semester hours of intermediate or advanced courses
from the following list:
BIOL 2301 to BIOL 5999
CHEM 2311 to CHEM 5999
CHME 2001 to CHME 4699
CIVE 2001 to CIVE 4699
CS 2990 to CS 4900
EECE 2001 to EECE 5999
ENVR 2300 to ENVR 5999
IE 2001 to IE 4699
MATH $2280 \quad$ Statistics and Software 4 SH
MATH 2285 Introduction to Multisample Statistics 4 SH
MATH 2321 to MATH 5999
ME 2001 to ME 4699
PHYS 2303 to PHYS 5999

## APPLIED PHYSICS MAJOR REQUIREMENTS

## Introductory Physics

Complete a lecture/lab set for Physics 1 and for Physics 2:

## PHYSICS 1

PHYS 1161 Physics 1 SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
or PHYS $1151 \quad$ Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYSICS 2
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS $1165 \quad 1$ SH
or PHYS 1155 Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS $1155 \quad 1$ SH

## Intermediate Physics

Complete the following three courses:

| PHYS 2303 | Modern Physics | 4 SH |
| :--- | :--- | :--- |
| PHYS 2305 | Thermodynamics and Statistical <br> Mechanics | 4 SH |
|  |  |  |
| PHYS 2371 | Electronics | 4 SH |

Advanced Physics
PHYS $4623 \quad$ Medical Physics 4 SH
PHYS 4651 Medical Physics Seminar 14 SH
PHYS $4652 \quad$ Medical Physics Seminar 2 SH

PHYS 5113 Introduction to Particle and Nuclear 4 SH Physics
PHYS $5115 \quad$ Quantum Mechanics 4 SH

## Senior Capstone and Experiential Education

Complete the following two courses:
$\begin{array}{lll}\text { PHYS 4996 } & \text { Experiential Education Directed Study } & 4 \text { SH } \\ \text { PHYS 5318 } & \text { Principles of Experimental Physics } & 4 \text { SH }\end{array}$
EXPERIENTIAL EDUCATION REQUIREMENT
Complete one course in experiential education. Please see department for approved courses.

## APPLIED PHYSICS MAJOR CREDIT REQUIREMENT

Complete 91 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Biomedical Physics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES FOR BIOMEDICAL PHYSICS MAJOR

## Mathematics

| Complete the following four calculus courses: |  |  |
| :--- | :--- | :--- |
| MATH 1341 | Calculus 1 for Science and <br> Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
| MATH 2321 | Calculus 3 for Science and <br> Engineering | 4 SH |
| MATH 2351 | Ordinary Differential Equations | 4 SH |

## General Engineering

Complete the following engineering course:

GE $1111 \quad$| Engineering Problem Solving and |
| :---: |
| Computation |

## Biology

Complete the following two courses with corresponding labs:

| BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 1113 | General Biology 2 | 4 SH |
| with BIOL 1114 | Lab for BIOL 1113 | 1 SH |
| Chemistry  <br> Complete the following course with corresponding lab:  <br> CHEM 1211 General Chemistry 1 |  |  |
| with CHEM 1212 Lab for CHEM 1211 | 4 SH |  |

## Technical Electives

Complete two intermediate or advanced courses from the following list:
BIOL 2301 to BIOL 5999
CHEM 2311 to CHEM 5999
CHME 2001 to CHME 4699
CIVE 2001 to CIVE 4699
CS 2990 to CS 4900
EECE 2001 to EECE 5999
ENVR 2300 to ENVR 5999
IE 2001 to IE 4699
MATH $2280 \quad$ Statistics and Software 4 SH
MATH 2285 Introduction to Multisample Statistics 4 SH
MATH 2321 to MATH 5999
ME 2001 to ME 4699
PHYS 2303 to PHYS 5999

## BIOMEDICAL PHYSICS MAJOR REQUIREMENTS

## Introductory Physics

Complete a lecture/lab set for Physics 1 and for Physics 2:

| PHYSICS 1 |  |
| :--- | :--- |
| PHYS 1161 | Physics 1 |

with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
or PHYS 1151 Physics for Engineering $1 \quad 4$ SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYSICS 2
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH
or PHYS 1155 Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Intermediate Physics

| Complete the following three courses: |  |  |
| :--- | :--- | :--- |
| PHYS 2303 | Modern Physics |  |
| PHYS 2305 | Thermodynamics and Statistical <br>  <br>  <br> Mechanics | 4 SH |
| PHYS 2371 | Electronics | 4 SH |

Advanced Physics
Complete the following three courses:

| PHYS 3600 | Advanced Physics Laboratory 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 3602 | Electricity and Magnetism | 4 SH |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 SH |

## Biomedical Physics

Complete the following four courses:

| PHYS 4621 | Biological Physics 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 4623 | Medical Physics | 4 SH |
| PHYS 4651 | Medical Physics Seminar 1 | 4 SH |
| PHYS 4652 | Medical Physics Seminar 2 | 4 SH |

## Senior Capstone and Experiential Education

Complete the following two courses:
$\begin{array}{lll}\text { PHYS 4996 } & \text { Experiential Education Directed Study } & 4 \text { SH } \\ \text { PHYS 5318 } & \text { Principles of Experimental Physics } & 4 \text { SH }\end{array}$

## BIOMEDICAL PHYSICS MAJOR CREDIT

## REQUIREMENT

Complete 101 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BS in Physics and Philosophy

NU CORE REQUIREMENTS
See page 26 for requirement list.

## BREADTH COURSES

## Mathematics

\(\left.\begin{array}{ll}Complete the following four courses: <br>
MATH 1341 \& Calculus 1 for Science and <br>

Engineering\end{array}\right]\)| Calculus 2 for Science and |  |
| :---: | :---: |
| MATH 1342 | Engineering |
| MATH 2321 | Calculus 3 for Science and <br> Engineering |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering |

PHYSICS REQUIREMENTS FOR DUAL MAJOR
Introductory Physics
Complete a lecture/lab set for Physics 1 and for Physics 2:
PHYSICS 1

| PHYS 1161 | Physics 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| or PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYSICS 2 |  |  |
| PHYS 1165 | Physics 2 | 4 SH |
| with PHYS 1166 | Lab for PHYS 1165 | 1 SH |
| or PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## Intermediate Physics

Complete the following three courses:

| PHYS 2303 | Modern Physics |
| :--- | :--- |
| PHYS 2305 | Thermodynamics and Statistical <br>  <br>  <br> Mechanics |
| PHYS 2371 | Electronics |

## Advanced Physics

Complete the following three courses:

| PHYS 3600 | Advanced Physics Laboratory 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 3602 | Electricity and Magnetism | 4 SH |

PHYS 5115 Quantum Mechanics 4 SH

## Physics Elective

Complete one elective from the following list:

| MATH 4606 | Mathematical and Computational <br> Methods for Physics | 4 SH |
| :--- | :--- | :--- |
| PHYS 3500 | Physics with Computers <br> PHYS 4606 | Mathematical and Computational <br> Methods for Physics |
| PHYS 4621 | Biological Physics 1 | 4 SH |
| PHYS 4623 | Medical Physics | 4 SH |
| PHYS 4651 | Medical Physics Seminar 1 | 4 SH |
| PHYS 4652 | Medical Physics Seminar 2 | 4 SH |
|  |  | 4 SH |


| PHYS 5113 | Introduction to Particle and Nuclear <br> Physics | 4 SH |
| :--- | :--- | :--- |
| PHYS 5260 | Introduction to Nanoscience and <br> Nanotechnology | 4 SH |
| PHILOSOPHY REQUIREMENTS FOR DUAL MAJOR |  |  |
| Philosophy Required Courses |  |  |
| Complete the following four courses: |  |  |
| PHIL 1115 | Introduction to Logic |  |
| or PHIL 1215 | Symbolic Logic | 4 SH |
| PHIL 2325 | Ancient Philosophy | 4 SH |
| PHIL 2330 | Modern Philosophy | 4 SH |
| PHIL 4505 | Metaphysics | 4 SH |

## Philosophy Seminar

Complete the following philosophy seminar:
PHIL $4902 \quad$ Great Philosophers Seminar 4 SH

## Additional Electives

Complete four additional electives in philosophy.

## PHYSICS/PHILOSOPHY INTEGRATIVE REQUIREMENTS

Complete the following two courses:

| PHIL 4510 | Philosophy of Science | 4 SH |
| :--- | :--- | :--- |
| PHYS 3601 | Classical Dynamics | 4 SH |

## EXPERIENTIAL EDUCATION REQUIREMENT

Complete one course in experiential education. Please see department for approved courses.

## PHYSICS AND PHILOSOPHY MAJOR CREDIT REQUIREMENT <br> Complete 98 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BSCHE in Chemical Engineering and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Computer Science and Physics

See page 271.
BSEE in Electrical Engineering and Physics
See page 295.

## BS in Environmental Geology and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Geology and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## BS in Mathematics and Physics

See page 168.

## BS/MS in Applied Physics and Engineering

GPA PROGRESSION REQUIREMENT
A GPA of 3.500 is required by the end of year three in order to enroll in graduate EECE courses in year four.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## BREADTH COURSES

## Mathematics

Complete the following four courses:
\(\left.\begin{array}{cc}MATH 1341 \& Calculus 1 for Science and <br>

Engineering\end{array}\right]\)| Calculus 2 for Science and |
| :---: |
| MATH 1342 |
| Engineering |
| MATH 2321 |
|  |
| Calculus 3 for Science and |
| MATH 2351 |
| Engineering |
| Ordinary Differential Equations |

## General Engineering

Complete one general engineering course:
GE 1111
Engineering Problem Solving and
Computation

## Chemistry

Complete one introductory chemistry course with corresponding lab:
CHEM 1211 General Chemistry 1

with CHEM 1212 Lab for CHEM 1211

## MAJOR REQUIREMENTS

Introductory Physics
Complete a lecture/lab set for Physics 1 and for Physics 2:

## PHYSICS 1

PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
or PHYS 1151 Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS 11511 SH

PHYSICS 2
PHYS 1165 Physics $2 \quad 4$ SH
with PHYS 1166 Lab for PHYS 11651 SH
or PHYS 1155 Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Intermediate Physics

Complete the following three courses:
PHYS $2303 \quad$ Modern Physics 4 SH

PHYS 2305 Thermodynamics and Statistical 4 SH
Mechanics
PHYS 2371 Electronics 4 SH
Advanced Physics
Complete the following four courses:

| PHYS 3600 | Advanced Physics Laboratory 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 3602 | Electricity and Magnetism | 4 SH |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 SH |
| PHYS 5115 | Quantum Mechanics | 4 SH |

Experiential Education
Complete the following course:
PHYS 4996 Experiential Education Directed Study 4 SH

## Senior Capstone

Complete the following course:
PHYS $5318 \quad$ Principles of Experimental Physics 4 SH
Engineering Undergraduate Requirements
Complete the following three courses:
EECE 2400 Linear Circuits 4 SH
EECE 2402 Electronics 4 SH
EECE 3464 Linear Systems 4 SH
Engineering Graduate Requirements
Complete the following two courses:
EECE $7200 \quad$ Linear Systems Analysis 4 SH
EECE 7204 Applied Probability and Stochastic 4 SH

## Engineering Graduate Electives

Complete six graduate EECE courses.

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## APPLIED PHYSICS AND ENGINEERING MAJOR CREDIT REQUIREMENT

Complete 115 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

160 total semester hours required
Minimum 3.000 GPA required

## Minor in Physics

## REQUIRED COURSES

Complete one of the following sequences with corresponding labs, as indicated:

Physics 1 and 2

| PHYS 1161 | Physics 1 |
| :--- | :--- |
| with PHYS 1162 | Lab for PHYS 1161 |
| PHYS 1165 | Physics 2 |
| with PHYS 1166 | Lab for PHYS 1165 |

Physics for Engineering 1 and 2
PHYS $1151 \quad$ Physics for Engineering 1
with PHYS 1152 Lab for PHYS 1151
PHYS $1155 \quad$ Physics for Engineering 2
with PHYS 1156 Lab for PHYS 1155

## ELECTIVE COURSES

Complete three courses from the following list:
MATH 4606 Mathematical and Computational Methods for Physics
PHYS 2303
Modern Physics
PHYS 2305
Thermodynamics and Statistical Mechanics
PHYS 2371
Electronics
PHYS 3600 Advanced Physics Laboratory 1
PHYS $3601 \quad$ Classical Dynamics
PHYS 3602 Electricity and Magnetism
PHYS 3603 Electromagnetic Waves and Optics
PHYS 4606 Mathematical and Computational

John H. Portz, PhD
Professor and Chair

Office: 301 Meserve Hall
Phone: 617.373.2796
Fax: 617.373.5311
E-mail contact: John H. Portz, Professor and Chair, j.portz@neu.edu

Political science majors study the art and science of politics, the structure and functions of government, political behavior, and public policymaking. Students will be exposed to the political and policy dimensions of societies, economic systems, and cultures, today and across time, both in the United States and in other nations.

Political science majors begin with a set of core courses covering American politics, comparative politics, international relations, and research methods. Building upon that base of knowledge, majors choose electives from a broad range of offerings. Electives chosen may follow a general path of interest designed by the student, or they can be structured to fit within more specialized concentrations in law and legal issues, international and comparative politics, or public policy and administration. Most majors participate in the cooperative education program, with placements in local, state, and federal government agencies; law firms; nonprofit institutions; and corporations. Many students complete either a co-op position or an internship with a congressional representative, a senator, a governor, or other elected public servant.

Students may also participate in extracurricular programs designed to expand their leadership ability, such as the Political Science Student Association/Pi Sigma Alpha, Model United Nations, Model Arab League, student government, College Democrats, College Republicans, or other student groups. Many students study in one of the college's international programs, such as the Irish Studies program, which includes an internship in the Irish Parliament. Students also may qualify for the University Honors Program.

The major in political science is designed to help prepare students for law school, graduate school, and careers in government and the nonprofit sector, as well as for teaching, journalism, legislative or lobbying positions, public relations activities, and work in international corporations.

## Transferring to the Major

Upperclass students transferring to the major must have a cumulative GPA of at least 2.000.

Acceptance into the major is based on students' meeting the department's criteria for admission and availability of space in the program.

## Academic Progression Standards

Same as college standards.

## BA in Political Science

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## INTRODUCTION TO COLLEGE

POLS $1000 \quad$ Political Science at Northeastern 1 SH

## POLITICAL SCIENCE MAJOR REQUIREMENTS

## Political Science Requirements

Complete the following five courses:

| POLS 1150 | American Government | 4 SH |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 2399 | Research Methods in Political Science | 4 SH |
| POLS 2400 | Quantitative Techniques | 4 SH |

## Political Theory

Complete one course from the following list:
POLS 2326 Premodern Political Thought 4 SH
POLS 2328 Modern Political Thought 4 SH
POLS 2330 American Political Thought 4 SH
POLS 2332 Contemporary Political Thought 4 SH

## Political Science Capstone

Complete the following course:
POLS $4701 \quad$ Political Science Senior Capstone 4 SH

## POLITICAL SCIENCE EXPERIENTIAL EDUCATION REQUIREMENT

Complete cooperative education or study abroad or one course from the following list. Note: Up to two credit-bearing courses count toward political science electives.

| AFRS 4645 | National Model OAU/African Union | 4 SH |
| :--- | :--- | :--- |
| POLS 4905 | Moot Court | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| POLS 4939 | Internship in State Government | 4 SH |
| POLS 4940 | Group Internship | 4 SH |
| POLS 4942 | Internship in Politics | 4 SH |
| POLS 4944 | Student Leadership Practicum | 4 SH |
| POLS 4946 | Internship in American Government | 4 SH |
| POLS 4948 | Community-Based Research | 4 SH |

## POLITICAL SCIENCE ELECTIVES FOR BA

Complete six political science electives with a minimum of four at or above the 2000-level.

## POLITICAL SCIENCE CONCENTRATIONS

If you choose to do one of the following concentrations, you may use four courses from the elective area to fulfill a concentration.

## Concentration in Law and Legal Issues

Complete four courses from the following list:

| POLS 2330 | American Political Thought | 4 SH |
| :--- | :--- | :--- |
| POLS 2335 | Budgeting and Taxation | 4 SH |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 3300 | The U.S. Congress | 4 SH |
| POLS 3302 | Judicial Process and Behavior | 4 SH |
| POLS 3305 | The American Presidency | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| POLS 3324 | Law and Society | 4 SH |
| POLS 4500 | U.S. Constitutional Law | 4 SH |
| POLS 4505 | U.S. Civil Liberties | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4615 | Seminar in Public Law | 4 SH |
| POLS 4905 | Moot Court | 4 SH |

Concentration in International and Comparative Politics
Complete four courses from the following list:
AFAM $3441 \quad$ Third World Political Relations 4 SH
AFRS $3460 \quad$ Contemporary Government and 4 SH
AFRS $4645 \quad$ National Model OAU/African Union 4 SH
POLS $2370 \quad$ Religion and Politics 4 SH
POLS 3405 International Political Economy 4 SH
POLS 3407 International Organizations 4 SH
POLS 3408 International Security 4 SH
POLS 3415 Ethnic Conflict in Comparative 4 SH
Politics
POLS $3420 \quad$ National Security, War, and Terrorism 4 SH
POLS $3425 \quad 4 . S$. Foreign Policy 4
POLS $3435 \quad$ Politics in Western Europe 4 SH
POLS $3440 \quad$ Politics in Northern Ireland 4 SH
POLS $3445 \quad$ Politics in Central and Eastern Europe 4 SH
POLS $3450 \quad$ Government and Politics in Russia 4 SH
POLS 3455 Russian Foreign Policy 4 SH
POLS 3465 Government and Politics in the Middle 4 SH
POLS $3470 \quad$ Arab-Israeli Conflict 4 SH
POLS 3475 Government and Politics in Latin 4 SH
POLS $3480 \quad$ Government and Politics in Japan 4 SH
POLS 3485 Government and Politics in China 4 SH
POLS $3487 \quad$ Politics of Developing Nations 4 SH
POLS 4510 International Law 4 SH
POLS 4515 Democracy in Comparative Politics 4 SH
POLS $4530 \quad$ Revolution, Civil War, and 4 SH
Insurrection
POLS $4910 \quad$ Model United Nations 4 SH
POLS $4915 \quad$ Model Arab League 4 SH
POLS $4917 \quad$ Model European Union 4 SH
Concentration in Public Policy and Administration
Complete four courses from the following list:
AFAM $2360 \quad$ Politics of Poverty 4 SH

POLS $2334 \quad$ Bureaucracy and Government 4 SH

| POLS 2335 | Budgeting and Taxation | 4 SH |
| :---: | :---: | :---: |
| POLS 2340 | Business and Government | 4 SH |
| POLS 2345 | Urban Policies and Politics | 4 SH |
| POLS 2350 | State and Local Politics | 4 SH |
| POLS 2355 | Intergovernmental Relations | 4 SH |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 2390 | Science, Technology, and Public Policy | 4 SH |
| POLS 2395 | Environmental Politics | 4 SH |
| POLS 3300 | The U.S. Congress | 4 SH |
| POLS 3302 | Judicial Process and Behavior | 4 SH |
| POLS 3305 | The American Presidency | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| POLS 3310 | Parties and Elections | 4 SH |
| POLS 3315 | Interest Groups and Public Policy | 4 SH |
| POLS 3320 | Politics and Mass Media | 4 SH |
| POLS 3402 | Survey Research and Polling | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3425 | U.S. Foreign Policy | 4 SH |
| POLS 4948 | Community-Based Research Practicum | 4 SH |
| SOCL 2358 | Current Issues in Cities and Suburbs | 4 SH |
| URBS 2357 | Growth and Decline of Cities and Suburbs | 4 SH |
| POLITICAL SCIENCE MAJOR CREDIT |  |  |
| REQUIREMENT |  |  |
| Complete 52 semester hours in the major. |  |  |

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Political Science

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## INTRODUCTION TO COLLEGE

POLS $1000 \quad$ Political Science at Northeastern 1 SH

## POLITICAL SCIENCE MAJOR REQUIREMENTS

## Political Science Requirements

Complete the following five courses:
POLS $1150 \quad 4$ SH
POLS $1155 \quad$ Comparative Politics 4 SH
POLS 1160 International Relations 4 SH
POLS 2399 Research Methods in Political Science 4 SH
POLS 2400 Quantitative Techniques 4 SH

## Political Theory

Complete one course from the following list:
POLS $2326 \quad$ Premodern Political Thought 4 SH

POLS 2328 Modern Political Thought 4 SH
POLS $2330 \quad$ American Political Thought 4 SH
POLS 2332 Contemporary Political Thought 4 SH
Political Science Capstone
Complete the following course:
POLS $4701 \quad$ Political Science Senior Capstone 4 SH

## POLITICAL SCIENCE EXPERIENTIAL EDUCATION REQUIREMENT <br> Complete cooperative education or study abroad or one course from the following list. Note: Up to two credit-bearing courses count toward political science electives.

| AFRS 4645 | National Model OAU/African Union | 4 SH |
| :--- | :--- | :--- |
| POLS 4905 | Moot Court | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| POLS 4939 | Internship in State Government | 4 SH |
| POLS 4940 | Group Internship | 4 SH |
| POLS 4942 | Internship in Politics | 4 SH |
| POLS 4944 | Student Leadership Practicum | 4 SH |
| POLS 4946 | Internship in American Government | 4 SH |
| POLS 4948 | Community-Based Research | 4 SH |
|  | $\quad$ Practicum |  |

## POLITICAL SCIENCE ELECTIVES FOR BS

Complete eight political science electives with a minimum of six at or above the 2000-level.

## POLITICAL SCIENCE CONCENTRATIONS

If you choose to do one of the following concentrations, you may use four courses from the elective area to fulfill a concentration.

## Concentration in Law and Legal Issues

| Complete four courses from the following list: |  |  |
| :--- | :--- | :--- |
| POLS 2330 | American Political Thought | 4 SH |
| POLS 2335 | Budgeting and Taxation | 4 SH |
| POLS 2385 | U.S. Health and Welfare Policy | 4 SH |
| POLS 3300 | The U.S. Congress | 4 SH |
| POLS 3302 | Judicial Process and Behavior | 4 SH |
| POLS 3305 | The American Presidency | 4 SH |
| POLS 3307 | Public Policy and Administration | 4 SH |
| POLS 3324 | Law and Society | 4 SH |
| POLS 4500 | U.S. Constitutional Law | 4 SH |
| POLS 4505 | U.S. Civil Liberties | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4615 | Seminar in Public Law | 4 SH |
| POLS 4905 | Moot Court | 4 SH |

Concentration in International and Comparative Politics
Complete four courses from the following list:

| AFAM 3441 | Third World Political Relations | 4 SH |
| :--- | :--- | :--- |
| AFRS 3460 | Contemporary Government and | 4 SH |

Politics in Africa


## ECONOMICS MAJOR REQUIREMENTS FOR BA

## Breadth Courses

Complete the following two courses:

| CS 1100 | Computer Science <br> and Its Applications | 4 SH |
| :--- | :--- | :--- |
| MATH 1231 | Calculus for Business and Economics | 4 SH |

## Required Economics Courses

Complete the following five courses. Grades in these five courses and in POLS 2400 or ECON 2350 (listed below) must average a minimum of 2.000:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH
ECON 2315 Macroeconomic Theory 4 SH
ECON 2316 Microeconomic Theory 4 SH
ECON $3520 \quad$ History of Economic Thought 4 SH

## Economics Electives

Complete three courses from the following list. At least one course must be at or above the intermediate level:
AFAM $1270 \quad$ Economic Status of Ethnic Minorities 4 SH
ECON $1230 \quad$ Health Care and Medical Economics 4 SH
ECON $1240 \quad$ Economics of Crime 4 SH
ECON $1290 \quad$ The Global Economy 4 SH
ECON $3415 \quad$ Poverty and Income 4 SH
ECON $3420 \quad 4 \mathrm{SH}$
ECON 3423 Environmental Economics 4 SH
ECON $3440 \quad$ Public Finance 4 SH
ECON $3461 \quad$ Government and Business 4 SH
ECON $4634 \quad$ Comparative Economics 4 SH
ECON 4635 International Economics 4 SH
QUANTITATIVE TECHNIQUES/STATISTICS
Complete either of the statistics and departmental elective combinations listed below:

## Combination A

Complete the following course:
POLS $2400 \quad$ Quantitative Techniques 4 SH
and an additional economics elective from the following list:
AFAM 1270 Economic Status of Ethnic Minorities 4 SH
ECON 1230 Health Care and Medical Economics 4 SH
ECON 1240 Economics of Crime 4 SH
ECON $1290 \quad$ The Global Economy 4 SH
ECON $3415 \quad$ Poverty and Income 4 SH
ECON $3420 \quad 4 \mathrm{SH}$
ECON 3423 Environmental Economics 4 SH
ECON 3440 Public Finance
ECON $3461 \quad$ Government and Business 4 SH
ECON $4634 \quad$ Comparative Economics 4 SH
ECON 4635 International Economics 4 SH

## Combination B

Complete the following course:
ECON 2350 Statistics
and an upper-division political science course in the following range:
POLS 2000 to POLS 5999

## INTEGRATIVE REQUIREMENT

## Senior Seminar/Capstone

Complete one of the following courses:
ECON $4692 \quad$ Senior Economics Seminar 4 SH

POLS $4701 \quad$ Political Science Senior Capstone 4 SH

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Political Science and Economics

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## POLITICAL SCIENCE MAJOR REQUIREMENTS

## Political Science Requirements

Complete the following three courses:

| POLS 1150 | American Government | 4 SH |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | Internation |  |

POLS 1160 International Relations

## Political Theory

Complete one course from the following list:
POLS $2326 \quad$ Premodern Political Thought 4 SH
POLS 2328 Modern Political Thought 4 SH
POLS $2330 \quad$ American Political Thought 4 SH
POLS 2332 Contemporary Political Thought 4 SH

## Political Science Restricted Electives

Complete two courses from the following list:
POLS 2335 Budgeting and Taxation 4 SH

POLS $2340 \quad$ Business and Government 4 SH
POLS 2345 Urban Policies and Politics 4 SH
POLS $3307 \quad$ Public Policy and Administration 4 SH
POLS 3405 International Political Economy 4 SH
POLS $3487 \quad$ Politics of Developing Nations 4 SH
Political Science Electives
Complete any two upper-division POLS courses in the following range:
POLS 3300 to POLS 5999

## ECONOMICS MAJOR REQUIREMENTS FOR BS

## Breadth Courses

Complete the following two courses:

| CS 1100 | Computer Science <br> and Its Applications | 4 SH |
| :--- | :--- | :--- |
| MATH 1231 | Calculus for Business and Economics | 4 SH |

## Required Economics Courses

Complete the following five courses. Grades in these five courses must average a minimum of 2.000 :
ECON 1115 Principles of Macroeconomics 4 SH
ECON $1116 \quad$ Principles of Microeconomics 4 SH
ECON 2315 Macroeconomic Theory 4 SH
ECON 2316 Microeconomic Theory 4 SH
ECON $3560 \quad 4$ SH

## Economics Electives

Complete three courses from the following list. At least one course must be at or above the intermediate level:
AFAM $1270 \quad$ Economic Status of Ethnic Minorities 4 SH
ECON $1230 \quad$ Health Care and Medical Economics 4 SH
ECON 1240 Economics of Crime 4 SH
ECON 1290 The Global Economy 4 SH
ECON $3415 \quad$ Poverty and Income 4 SH
ECON $3420 \quad 4 \mathrm{SH}$
ECON 3423 Environmental Economics 4 SH
ECON 3440
Public Finance
ECON 3461
Government and Business
4 SH

ECON $4634 \quad$ Comparative Economics 4 SH
ECON 4635 International Economics 4 SH

## QUANTITATIVE TECHNIQUES/STATISTICS

Complete either of the statistics and departmental elective combinations listed below:

## Combination A

Complete the following course:
POLS $2400 \quad$ Quantitative Techniques 4 SH
and an additional economics elective from the following list:
AFAM 1270 Economic Status of Ethnic Minorities 4 SH
ECON 1230 Health Care and Medical Economics 4 SH
ECON $1240 \quad$ Economics of Crime 4 SH
ECON 1290 The Global Economy 4 SH
ECON $3415 \quad$ Poverty and Income 4 SH
ECON $3420 \quad 4$ SH
ECON 3423 Environmental Economics 4 SH
ECON $3440 \quad$ Public Finance 4 SH
ECON 3461 Government and Business 4 SH
ECON $4634 \quad$ Comparative Economics 4 SH
ECON 4635 International Economics 4 SH

## Combination B

Complete the following course:
ECON 2350 Statistics

## INTEGRATIVE REQUIREMENTS

## Senior Seminar/Capstone

Complete one of the following courses:

| ECON 4692 | Senior Economics Seminar | 4 SH |
| :--- | :--- | :--- |
| POLS 4701 | Political Science Senior Capstone | 4 SH |

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Political Science and International Affairs

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## POLITICAL SCIENCE MAJOR REQUIREMENTS

## Political Science Requirements

Complete the following four courses:

| POLS 1150 | American Government | 4 SH |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 2400 | Quantitative Techniques | 4 SH |

## Political Theory

Complete one course from the following list:
POLS 2326 Premodern Political Thought 4 SH

POLS 2328 Modern Political Thought 4 SH
POLS 2330 American Political Thought 4 SH
POLS 2332 Contemporary Political Thought 4 SH

## POLITICAL SCIENCE ELECTIVES

Complete four upper-division political science electives.
INTERNATIONAL AFFAIRS MAJOR REQUIREMENTS

## Required Courses

Complete the following four courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
or ECON 1290 The Global Economy 4 SH
HIST $1211 \quad 4$ SH
INTL $1101 \quad$ Globalization and International Affairs 4 SH
INTL 3400 International Conflict and Negotiation 4 SH

## Regional Analysis

Complete three regional analysis courses, at least two of which must be in one region, from the following lists. Summer-session study abroads are also acceptable in combination with "Dialogue of Civilizations." See department for additional courses.

| AFRICA |  |  |
| :---: | :---: | :---: |
| AFRS 2307 | Africa Today | 4 SH |
| AFRS 2390 | Africa and the World in Early Times | 4 SH |
| or HIST 2390 | Africa and the World in Early Times | 4 SH |
| AFRS 2391 | Modern African Civilization | 4 SH |
| AFRS 2392 | African Diaspora | 4 SH |
| AFRS 3424 | Black Pandemics/Epidemiology of Disease | 4 SH |
| AFRS 3428 | African Languages | 4 SH |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 SH |
| AFRS 3470 | Identity and Nationalism in Africa | 4 SH |
| AFRS 4645 | National Model OAU/African Union | 4 SH |
| AFRS 4690 | Topics in African History | 4 SH |
| ANTH 4510 | Anthropology of Africa | 4 SH |
| HIST 1180 | African History | 4 SH |
| HIST 2397 | Colonialism and Contemporary Africa | 4 SH |
| MUSC 1128 | Music of Africa | 4 SH |
| ASIA |  |  |
| ASNS 1150 | East Asian Studies | 4 SH |
| ASNS 3444 | Topics in Japanese Studies | 4 SH |
| CLTR 1260 | Japanese Film | 4 SH |
| CLTR 1500 | Backgrounds of Chinese Culture | 4 SH |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 SH |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 SH |
| HIST 1189 | Introduction to South Asian History | 4 SH |
| HIST 1250 | Emergence of East Asia | 4 SH |
| HIST 1251 | Modern East Asia | 4 SH |
| HIST 1252 | Japanese Literature and Culture | 4 SH |
| HIST 1253 | History of Vietnam Wars | 4 SH |
| HIST 1254 | Contemporary China | 4 SH |
| HIST 1507 | Chinese Civilization in Her Eyes | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2350 | Modern China | 4 SH |
| HIST 2351 | Japan since 1850 | 4 SH |
| HIST 2352 | Contemporary Japan and Korea | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HIST 4650 | Topics in Asian History | 4 SH |
| POLS 3480 | Government and Politics in Japan | 4 SH |
| POLS 3485 | Government and Politics in China | 4 SH |
| RELS 1275 | Eastern Religions | 4 SH |
| RELS 1290 | Chinese Philosophy and Religion | 4 SH |
| RELS 3398 | Religion and Culture in Indian Cinema | 4 SH |
| EUROPE |  |  |
| CLTR 1265 | Spanish Civil War on Film | 4 SH |
| CLTR 1280 | French Film and Culture | 4 SH |
| CLTR 1501 | Introduction to French Culture | 4 SH |
| CLTR 1503 | Introduction to Italian Culture | 4 SH |
| CLTR 1504 | Introduction to Spanish Culture | 4 SH |
| CLTR 2504 | Modern German Film and Literature | 4 SH |
| ECON 1293 | European Economic History | 4 SH |
| HIST 1170 | Introduction to European History | 4 SH |
| HIST 1272 | The Invention of Europe 500-1500 | 4 SH |


| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH |
| :---: | :---: | :---: |
| HIST 1281 | Holocaust | 4 SH |
| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 | 4 SH |
| HIST 2371 | Europe 1870-1921 | 4 SH |
| HIST 2372 | Gender and Society in Modern Europe | 4 SH |
| HIST 2375 | Culture and Identity in Early Modern England | 4 SH |
| HIST 2376 | The British Empire | 4 SH |
| HIST 2377 | Ireland and the Irish Migration | 4 SH |
| HIST 2388 | Borderlands: World War II in Eastern Europe | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH |
| HIST 3485 | Vienna, Prague, Budapest | 4 SH |
| HIST 4670 | Topics in European History | 4 SH |
| HIST 4682 | Topics in East European History | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH |
| LITR 4555 | French Poetry | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |
| LITR 4860 | Age of Enlightenment | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH |
| POLS 3435 | Politics in Western Europe | 4 SH |
| POLS 3440 | Politics in Northern Ireland | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH |
| POLS 4917 | Model European Union | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH |
| LATIN AME |  |  |
| AFAM 2345 | The Black Experience in the Caribbean | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH |


| HIST 1260 | Modern Latin America | 4 SH |
| :---: | :---: | :---: |
| HIST 1261 | The Modern Caribbean | 4 SH |
| HIST 4660 | Topics in Latin American History | 4 SH |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 SH |
| LITR 3501 | Caribbean Literature and Culture | 4 SH |
| MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| POLS 3475 | Government and Politics in Latin America | 4 SH |
| MIDDLE EAST |  |  |
| CLTR 1502 | Introduction to Arabic Culture | 4 SH |
| ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 1185 | Introduction to Middle Eastern History | 4 SH |
| HIST 1290 | Modern Middle East | 4 SH |
| HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 2393 | Islam and Empires | 4 SH |
| HIST 2394 | Islamic Nationalism | 4 SH |
| HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| HIST 2396 | The Middle East and Modernity | 4 SH |
| HIST 4691 | Topics in Middle Eastern History | 4 SH |
| INTL 1160 | Middle East Studies | 4 SH |
| INTL 2360 | Human Rights in the Middle East | 4 SH |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin | 4 SH |
| POLS 3465 | Government and Politics in the Middle East | 4 SH |
| POLS 3470 | Arab-Israeli Conflict | 4 SH |
| POLS 4915 | Model Arab League | 4 SH |
| RELS 1280 | Islam | 4 SH |
| RELS 1285 | Jewish Religion and Culture | 4 SH |
| RUSSIA |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 SH |
| HIST 1286 | History of the Soviet Union | 4 SH |
| HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| HIST 2386 | History of Soviet Cinema | 4 SH |
| HIST 2387 | Soviet Secret Police | 4 SH |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 SH |
| HIST 4680 | Topics in Russian History | 4 SH |
| HIST 4681 | Topics in Soviet History | 4 SH |
| IDSC 3443 | Topics in Russian Studies | 4 SH |
| LITR 3503 | Russian Literature in Translation | 4 SH |
| POLS 3450 | Government and Politics in Russia | 4 SH |
| POLS 3455 | Russian Foreign Policy | 4 SH |
| SOCL 1215 | Society and Culture in Russia | 4 SH |

## Global Dynamics

Complete two global dynamics courses, one of which must be at the 2000-level or above, from the following list. Note: Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement.

| AFAM 3441 | Third World Political Relations | 4 SH |
| :---: | :---: | :---: |
| AFAM 4639 | Globalism, Racism, and Human Rights | 4 SH |
| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| ECON 3404 | International Food Economics and Policy | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1202 | Global Inequity | 4 SH |
| HIST 1204 | Third World Women | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH |
| HIST 2315 | Approaches to World History | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |
| INTB 1201 | Global Environment of International Business | 4 SH |
| INTB 1203 | International Business and Global Social Responsibility | 4 SH |
| INTB 1209 | Global Environment of International Business | 4 SH |
| INTB 3310 | Cultural Aspects of International Business | 4 SH |
| INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| INTL 4940 | Global Corps Practicum | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |


| MUSC 3470 | War and Music | 4 SH |
| :---: | :---: | :---: |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |
| POLS 4530 | Revolution, Civil War, and Insurrection | 4 SH |
| POLS 4580 | Special Topics: Comparative Politics and International Relations | 4 SH |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | Model United Nations | 4 SH |

## INTERNATIONAL AFFAIRS FOREIGN LANGUAGE REQUIREMENT

Note: Completing this requirement satisfies the language requirement for the BA degree.

## Elementary-Level Language

Complete two language courses at the elementary level.

## Intermediate-Level Language

Continue with your language through at least intermediate-level two (course number level 2102 or 2302).

## INTEGRATIVE REQUIREMENTS

## Capstone

Complete one of the following courses:
INTL 4700 Senior Capstone Seminar in International Affairs
POLS $4701 \quad$ Political Science Senior Capstone

## International Experiential Education

Complete at least one "international semester" (one full semester or two summer half semesters) via study abroad, international internship, or international co-op.

## POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS DUAL-MAJOR CREDIT REQUIREMENT

Complete 84 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BA in Environmental Studies and Political Science <br> See page 125.

## BA/MA in Political Science

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## BSIMA in Political Science

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Minor in Political Science

## REQUIRED COURSES

Complete two of the following courses:
POLS $1150 \quad 4$ SH
POLS 1155 Comparative Politics 4 SH
POLS 1160 International Relations 4 SH

## ELECTIVE COURSES

Complete three POLS courses.

## GPA REQUIREMENT

2.000 GPA required in the minor

## PSYCHOLOGY

www.psych.neu.edu

Rhea T. Eskew, PhD
Professor and Chair

Office: 125 Nightingale Hall
Phone: 617.373.3076
Fax: 617.373.8714

S
$S_{\text {tudies in modern psychology focus on behaviors and mental }}$ processes. Grounded in empirical research with both humans and animals, psychologists investigate and seek explanations for the behaviors and mental life of individuals in addition to developing methods for promoting psychological well-being.

The psychology curriculum explores such topics as how brain function determines behavior; how we see, hear, and learn; what constitutes abnormal personality; how people develop emotionally and cognitively; and how individuals work in groups. Through laboratory practice and experimentation, individual research projects, and small-group seminars, the program encourages critical evaluation of psychology's accomplishments and its future.

The Department of Psychology offers honors sections of introductory psychology, as well as honors activities in other courses. All students are eligible for directed study courses, which are individualized study or research experiences under the supervision of a faculty member. Co-op placements are based in both community (often mental health) and laboratory settings.

A solid scientific background in psychology helps prepare students for careers in teaching, business, public service, or research and provides a foundation for graduate study in all areas of psychology, including clinical, as well as in law and medicine.

Note: No double majors are offered in psychology and behavioral neuroscience due to similarity in course curricula. The minor is not available for students majoring in behavioral neuroscience or any dual major that involves psychology.

## Transferring to the Major

A student within the University seeking admission into the major must either (a) have a cumulative GPA of 2.500 or higher or (b) have taken at least three psychology courses at Northeastern and have a GPA of 2.500 or higher in psychology at Northeastern.

## Academic Progression Standards

Students who fail to maintain a minimum GPA of 2.000 will be placed on departmental probation. Three consecutive academic terms on departmental probation will result in dismissal from the major.

## BS in Psychology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## PSYCHOLOGY MAJOR REQUIREMENTS

## Introductory Course

Complete the following course: Note: PSYC 1101 may not be used to satisfy the NU Core social science level 1 requirement: PSYC $1101 \quad$ Foundations of Psychology

## Personal/Social Bases of Behavior (Area A)

Complete two courses from the following list:
PSYC $3400 \quad$ Personality 4 SH

PSYC $3402 \quad$ Social Psychology 4 SH
PSYC 3404 Developmental Psychology 4 SH
PSYC 3406 Abnormal Psychology 4 SH
Biological/Cognitive Bases of Behavior (Area B)
Complete two courses from the following list:
PSYC 3450 Learning and Motivation
PSYC 3452 Sensation and Perception
PSYC 3458 Psychobiology
PSYC $3464 \quad$ Psychology of Language
PSYC 3466 Cognition

## Statistics

Complete the following course:
PSYC $2320 \quad$ Statistics in Psychological Research
4 SH

## Psychology Seminar

Complete one seminar from the following list:

| PSYC 4650 | Seminar in Clinical Case Study | 4 SH |
| :---: | :---: | :---: |
| PSYC 4652 | Seminar in Ethics in Psychology | 4 SH |
| PSYC 4654 | Seminar in Behavioral Modification | 4 SH |
| PSYC 4656 | Seminar in Psychobiology | 4 SH |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4662 | Seminar in Personality | 4 SH |
| PSYC 4664 | Seminar in Social Psychology | 4 SH |
| PSYC 4666 | Seminar in Clinical Psychology | 4 SH |
| PSYC 4668 | Seminar in Sensation and Perception | 4 SH |
| PSYC 4670 | Seminar in Research Psychology | 4 SH |
| PSYC 4672 | Seminar in History and Theories of Psychology | 4 SH |

## Lab Requirement

Complete two psychology lab courses or one psychology lab course and one psychology directed study:

LAB

| AFAM 4618 | Laboratory in Community Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3536 | Developing Education and | 4 SH |

Intervention Programs for Eating Disorders
PSYC $4600 \quad$ Research Design in Psychology 4 SH
PSYC 4602 Experiments in Learning and 4 SH
Motivation
PSYC 4604 Laboratory in Learning and 4 SH
Motivation
PSYC 4606 Laboratory in Psychobiology 4 SH
PSYC 4608 Laboratory in Animal Behavior 4 SH
Research
PSYC 4610 Laboratory in Psycholinguistics 4 SH
PSYC 4612 Laboratory in Cognition 4 SH
PSYC 4614 Laboratory in Social Psychology 4 SH
PSYC 4616 Laboratory in Personality 4 SH
PSYC $4620 \quad$ Laboratory in 4 SH
Industrial/Organizational Psychology
PSYC 4622 Laboratory in Sensation and
Perception
DIRECTED STUDY

| PSYC 4992 | Directed Study | 4 SH |
| :--- | :--- | :--- |
| PSYC 4996 | Experiential Education Directed Study | 4 SH |

## PSYCHOLOGY REQUIRED ELECTIVES FOR BS

 STUDENTSComplete five elective PSYC courses.

## INTERDISCIPLINARY CLUSTER

Complete three psychology-related courses. Choose from one group only. Courses used to satisfy core requirements cannot be used as psychology-related electives.

| Educational Psychology |  |  |
| :---: | :---: | :---: |
| AFAM 3485 | Education Issues in the Black Community | 4 SH |
| EDUC 1113 | Human Development and Learning | 4 SH |
| EDUC 5104 | Learning and Accomplished Practice | 3 SH |
| EDUC 5152 | Inquiry in the Humanities and Social Sciences at the Elementary Level | 3 SH |
| EDUC 5170 | Inclusion, Equity, and Diversity | 3 SH |
| EDUC 7335 | Race and Urban Education | 3 SH |
| SLPA 4501 | Language Disorders in Children | 4 SH |
| SOCL 1290 | Juvenile Delinquency | 4 SH |
| Society and Psychology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2302 | Gender and Sexuality: A CrossCultural Perspective | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| SOCL 1235 | Social Psychology | 4 SH |
| SOCL 1240 | Sociology of Prejudice and Violence | 4 SH |
| SOCL 1241 | Sociology of Violence | 4 SH |
| SOCL 1255 | Sociology of the Family | 4 SH |
| SOCL 1256 | Violence in the Family | 4 SH |
| SOCL 1260 | Gender in a Changing Society | 4 SH |
| SOCL 1285 | Deviant Behavior and Social Control | 4 SH |
| SOCL 1290 | Juvenile Delinquency | 4 SH |
| SOCL 1295 | Drugs and Society | 4 SH |
| Forensic Psychology |  |  |
| CHEM 1107 | Introduction to Forensic Chemistry | 4 SH |
| CRIM 2200 | Criminology | 4 SH |
| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4310 | Correctional Intervention | 4 SH |
| CRIM 4600 | Criminal Violence | 4 SH |
| CRIM 4660 | Communities and Crime | 4 SH |
| CRIM 4700 | Psychology of Crime | 4 SH |
| CRIM 4710 | Law and Psychology | 4 SH |
| Cross-Cultural Psychology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LING 3442 | Sociolinguistics | 4 SH |
| SOCL 1270 | Race and Ethnic Relations | 4 SH |
| Expressive Therapy |  |  |
| EDUC 1150 | Multicultural Children's Literature | 4 SH |
| MUSC 1118 | Music Therapy 1 | 4 SH |
| MUSC 2318 | Music Therapy 2 | 4 SH |
| THTR 1120 | Acting 1 | 4 SH |
| Counseling and Applied Psychology |  |  |
| CAEP 3480 | Counseling Theories and Practice | 4 SH |
| CAEP 3485 | Mental Health and Counseling | 4 SH |
| CAEP 4502 | Health Counseling | 3 SH |
| HUSV 2300 | Counseling in Human Services | 4 SH |
| HUSV 3520 | Child Intervention and Treatment | 4 SH |

Artificial Intelligence and Information Science

| CS 1500 | Algorithms and Data Structures for <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4100 | Artificial Intelligence | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |
| IS 2000 | Principles of Information Science | 4 SH |
| IS 4300 | Human Computer Interaction | 4 SH |

## Language

LING $2350 \quad$ Linguistic Analysis 4 SH
LING 3412 Language and Culture 4 SH
LING $3422 \quad$ Phonology 4 SH
LING $3434 \quad$ Bilingualism 4 SH
LING 3442 Sociolinguistics 4 SH
LING 3450 Syntax 4 SH
LING 3452 Semantics 4 SH
LING 3456 Language and Gender 4 SH
PHIL 1215 Symbolic Logic 4 SH
PHIL $4540 \quad$ Philosophy of Language 4 SH
SLPA 1202 Neurological Bases of Communication 4 SH
SLPA $1205 \quad$ Speech and Hearing Science 4 SH
SLPA $4500 \quad$ Language Disorders in Adults 4 SH
SLPA 4501 Language Disorders in Children 4 SH
Human Factors

| IS 2000 | Principles of Information Science <br> Information System Design and | 4 SH |
| :--- | :--- | :--- |
| IS 3500 | Development |  |
|  | Information Retrieval | 4 SH |
| IS 4200 | Human Computer Interaction | 4 SH |
| IS 4300 | Empirical Research Methods | 4 SH |

$\begin{array}{lll}\text { Child and Adolescent Abnormal Psychology } \\ \text { SLPA } 4501 \quad \text { Language Disorders in Children } & \\ \text { SH }\end{array}$
SLPA 5150 Early Intervention: Assessment and 3 SH Intervention
SOCL 1256 Violence in the Family 4 SH
SOCL $1290 \quad$ Juvenile Delinquency 4 SH
SOCL $1295 \quad$ Drugs and Society 4 SH
SOCL $3437 \quad$ Children and Youth in Contemporary 4 SH
Society

## Human Resources Management and Business

| INTB 3310 | Cultural Aspects of International <br> Business | 4 SH |
| :--- | :--- | :--- |
| MISM 2301 | Management Information Systems | 4 SH |
| MKTG 2209 | Introduction to Marketing | 4 SH |
| ORGB 3201 | Organizational Behavior | 4 SH |
| PHIL 1170 | Business Ethics | 4 SH |
| SOCL 1272 | Social Roles in the Business World | 4 SH |
| SOCL 1273 | Women Working | 4 SH |
| SOCL 1280 | Sociology of Work | 4 SH |

Philosophy of Science and Psychology

| PHIL 1105 | Introduction to Scientific Method | 4 SH |
| :--- | :--- | :--- |
| PHIL 1114 | Critical Reasoning | 4 SH |


| PHIL 1115 | Introduction to Logic | 4 SH |
| :--- | :--- | :--- |
| PHIL 4510 | Philosophy of Science | 4 SH |
| PHIL 4530 | Philosophy of Psychology | 4 SH |
| PHIL 4535 | Philosophy of Mind | 4 SH |
| PHIL 4540 | Philosophy of Language | 4 SH |
| Ethics |  |  |
| MGMT 3301 | Legal, Ethical, and Social Issues | 2 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| PHIL 1165 | Moral and Social Problems in Health | 4 SH |
|  | $\quad$ Care |  |
| PHIL 1170 | Business Ethics | 4 SH |
| PHIL 1180 | Environmental Ethics | 4 SH |
| PHIL 2340 | Philosophy of Human Nature | 4 SH |
| PHIL 3435 | Moral Philosophy | 4 SH |
| PHIL 3465 | Advanced Medical Ethics | 4 SH |
| SOCL 1240 | Sociology of Prejudice and Violence | 4 SH |

## Biological and Chemical Sciences

Complete any biology or chemistry course not taken to fulfill the
NU Core science/technology level 1 requirement:
BIOL $1101 \quad$ Principles of Biology 1 SH
with BIOL 1102 Lab for BIOL 11011 SH
BIOL $1103 \quad$ Principles of Biology 2 SH
with BIOL 1104 Lab for BIOL 11031 SH
BIOL $1111 \quad$ General Biology 1 SH
BIOL 1113 General Biology 24 SH
BIOL 1117 Integrated Anatomy and Physiology $1 \quad 4$ SH
BIOL 1119 Integrated Anatomy and Physiology 24 SH
with BIOL 1120 Lab for BIOL 11191 SH
BIOL 1141 Microbes and Society 4 SH
BIOL 1145 Environment and Humankind 4 SH
BIOL 1147 The Human Organism 4 SH
BIOL $1149 \quad$ Biology of Human Reproduction 4 SH
BIOL 1151 Introduction to Marine Biology 4 SH
BIOL 2311 Ecology 4 SH
or BIOL 5567 Wildlife Biology 4 SH
BIOL 3403 Animal Behavior 4 SH
BIOL 3405 Neurobiology 4 SH
BIOL 5545 Neuroethology 4 SH
BIOL 5547 Sociobiology 4 SH
BIOL 5563 Ornithology 4 SH
or BIOL 5565 Mammalogy 4 SH
BIOL $5585 \quad$ Evolution 5 SH
CHEM 1101 General Chemistry for Health 4 SH
Sciences
with CHEM 1102 Lab for CHEM 11011 SH
CHEM 1104 Organic Chemistry for Health 4 SH
Sciences
with CHEM 1105 Lab for CHEM 11041 SH
CHEM 1107 Introduction to Forensic Chemistry 4 SH
CHEM 1211 General Chemistry 14 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
CHEM 2321 Analytical Chemistry 4 SH

| ENVR 1121 | Marine Resources | 4 SH |
| :--- | :--- | :--- |
| ENVR 1123 | Biological Oceanography | 4 SH |
| ENVR 1124 | New England Fisheries Resources | 4 SH |

## Physical Sciences and Mathematics

In addition to the following courses, any math skill course may be used with advisor approval provided it is beyond the mathematics course used to satisfy the mathematics core requirement:
ENVR $1101 \quad 4$ SH
ENVR $1104 \quad$ Natural Disasters and Catastrophes 4 SH
ENVR $1110 \quad$ Global Climate Change 4 SH
ENVR $1112 \quad 4 \mathrm{SH}$
ENVR $1120 \quad$ Oceans and Coasts 4 SH
ENVR $1121 \quad 4 \mathrm{SH}$
ENVR $1122 \quad$ Physical Oceanography 4 SH
ENVR $1123 \quad$ Biological Oceanography 4 SH
ENVR $1124 \quad$ New England Fisheries Resources 4 SH
ENVR $1130 \quad$ Planetary Astronomy 4 SH
ENVR $1140 \quad$ Physical Geography 4 SH
ENVR $1200 \quad$ Dynamic Earth 4 SH
ENVR $3100 \quad$ Oceanography 3 SH
ENVR 3418 Geophysics 4 SH

MATH $2210 \quad$ Foundations of Mathematics 4 SH
MATH $2310 \quad$ Discrete Mathematics 4 SH
MATH $4581 \quad$ Statistics and Stochastic Processes 4 SH
PSYCHOLOGY EXPERIENTIAL EDUCATION REQUIREMENT
Complete one of the following courses:
AFAM 4618 Laboratory in Community Psychology 4 SH
EDUC 4850 Teaching Practicum 8 SH
HUSV $4620 \quad$ Civic Engagement, Leadership, and 4 SH Ethics in Practice 1
PSYC $3516 \quad$ Studies in College Eating Behavior 4 SH
PSYC 3536 Developing Education and 4 SH Intervention Programs for Eating Disorders
PSYC $4600 \quad$ Research Design in Psychology 4 SH
PSYC $4652 \quad$ Seminar in Ethics in Psychology 4 SH
PSYC 4654 Seminar in Behavioral Modification 4 SH
PSYC $4970 \quad$ Junior/Senior Honors Project $1 \quad 4$ SH
PSYC $4994 \quad$ Internship in Psychology 4 SH
PSYC 4996 Experiential Education Directed Study 4 SH

## PSYCHOLOGY MAJOR CREDIT REQUIREMENT

Complete 68 semester hours in the major. A maximum of 34 semester hours of transfer credit is allowed in the major. Note: Up to 12 semester hours of psychology-related electives will count toward the major only after the psychology-related elective section has been completed.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Psychology and Education

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## PSYCHOLOGY MAJOR REQUIREMENTS

## Introductory Course

Complete the following course. Note: PSYC 1101 cannot be used to satisfy the NU Core social science level 1 requirement:
PSYC 1101 Foundations of Psychology 4 SH
Developmental Psychology
Complete the following course:
PSYC 3404 Developmental Psychology

## Statistics

Complete the following course:
PSYC $2320 \quad$ Statistics in Psychological Research 4 SH

## Learning/Cognitive Development

Complete one of the following courses. Note: PSYC 3450 cannot be used to satisfy both this requirement and the Area B requirement below:

| PSYC 3450 | Learning and Motivation | 4 SH |
| :--- | :--- | :--- |
| PSYC 4524 | Cognitive Development | 4 SH |

Personal/Social Bases of Behavior (Area A)
Complete one course from the following list:

| PSYC 3400 | Personality |
| :--- | :--- |
| PSYC 3402 | Social Psychology |
| PSYC 3406 | Abnormal Psychology |

Biological/Cognitive Bases of Behavior (Area B)
Complete one course from the following list:
PSYC $3450 \quad$ Learning and Motivation
PSYC 3452 Sensation and Perception
PSYC $3458 \quad$ Psychobiology
PSYC $3464 \quad$ Psychology of Language
PSYC 3466

## Psychology Seminar

Complete one seminar from the following list:
PSYC $4650 \quad$ Seminar in Clinical Case Study 4 SH
PSYC $4652 \quad$ Seminar in Ethics in Psychology 4 SH
PSYC $4654 \quad$ Seminar in Behavioral Modification 4 SH
PSYC 4656 Seminar in Psychobiology 4 SH
PSYC 4658 Seminar in Psycholinguistics 4 SH
PSYC $4660 \quad 4$ SH
PSYC $4662 \quad$ Seminar in Personality 4 SH
PSYC 4664 Seminar in Social Psychology 4 SH
PSYC 4666 Seminar in Clinical Psychology 4 SH
PSYC 4668 Seminar in Sensation and Perception 4 SH
PSYC $4670 \quad$ Seminar in Research Psychology 4 SH
PSYC $4672 \quad$ Seminar in History and Theories of 4 SH

## Lab Requirement

Complete one psychology lab course from the following list:

| AFAM 4618 | Laboratory in Community Psychology | 4 SH |
| :---: | :---: | :---: |
| PSYC 3536 | Developing Education and Intervention Programs for Eating Disorders | 4 SH |
| PSYC 4600 | Research Design in Psychology | 4 SH |
| PSYC 4602 | Experiments in Learning and Motivation | 4 SH |
| PSYC 4604 | Laboratory in Learning and Motivation | 4 SH |
| PSYC 4606 | Laboratory in Psychobiology | 4 SH |
| PSYC 4608 | Laboratory in Animal Behavior Research | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4614 | Laboratory in Social Psychology | 4 SH |
| PSYC 4616 | Laboratory in Personality | 4 SH |
| PSYC 4620 | Laboratory in Industrial/Organizational Psychology | 4 SH |
| PSYC 4622 | Laboratory in Sensation and Perception | 4 SH |

## PSYCHOLOGY REQUIRED ELECTIVES

## Major Electives

Complete three elective PSYC courses.

## EDUCATION MAJOR REQUIREMENTS

## Education in the Community

Complete the following course:
EDUC 1111 Education in the Community 4 SH
Required Courses
Complete the following six courses:

EDUC 5104 Learning and Accomplished Practice 3 SH
EDUC 5152 Inquiry in the Humanities and Social 3 SH
Sciences at the Elementary Level
EDUC 5153 Inquiry in Math and Science at the 3 SH
Elementary Level
EDUC 5167 Literacy Development and Instruction 3 SH
EDUC $5170 \quad$ Inclusion, Equity, and Diversity 3 SH
EDUC 7335 Race and Urban Education 3 SH
PSYCHOLOGY/EDUCATION INTEGRATIVE

## REQUIREMENT

Complete the following course with corresponding seminar:
EDUC $4850 \quad$ Teaching Practicum 8 SH
with EDUC 4851 Teaching Seminar 4 SH

## PSYCHOLOGY/EDUCATION MAJOR CREDIT REQUIREMENTS <br> Complete 80 semester hours in the major. <br> GENERAL ELECTIVES <br> Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Psychology

See page 56.

## BS in Computer Science and Cognitive Psychology

 See page 262.
## BS in Information Science and Cognitive Psychology

See page 273.

## BA in Linguistics and Psychology

See page 165.

## Minor in Psychology

Note: A maximum of two courses (or 8 semester hours) of transfer credit may count toward the minor. Courses taken pass/fail and receiving an S grade may not be used toward the minor. Transfer courses may not be used to satisfy the Area A or Area B requirements of the minor.

## REQUIRED COURSE

Complete the following course:
PSYC 1101 Foundations of Psychology 4 SH
PERSONAL/SOCIAL BASES OF BEHAVIOR (AREA A)
Complete one of the following courses:
PSYC $3400 \quad$ Personality 4 SH
PSYC 3402 Social Psychology 4 SH
PSYC 3404 Developmental Psychology 4 SH
PSYC 3406 Abnormal Psychology 4 SH

## BIOLOGICAL/COGNITIVE BASES OF BEHAVIOR

(AREA B)
Complete one of the following courses:
PSYC 3450 Learning and Motivation 4 SH
PSYC 3452 Sensation and Perception 4 SH
PSYC $3458 \quad$ Psychobiology 4 SH
PSYC $3464 \quad$ Psychology of Language 4 SH
PSYC 3466 Cognition 4 SH

## ELECTIVE COURSES

Complete two additional PSYC courses.

## GPA REQUIREMENT

2.000 GPA required in the minor

SOCIOLOGY AND ANTHROPOLOGY
www.socant.neu.edu

Steven P. Vallas, PhD
Professor and Chair

Office: 500 Holmes Hall
Phone: 617.373.2686
Fax: 617.373.2688
E-mail contact: Mary Ramsey, Administrative Secretary, m.ramsey@neu.edu

S
ociology and cultural anthropology provide the critical perspective needed for studying the social cultural arrangements in which people live, for understanding how societies function, for studying the conditions under which people change society, and for describing the modes and conditions of cooperation that make social life possible.

Courses in the program examine such areas as gender, race, class, globalization, cities, conflict, law and crime, multiculturalism and intercultural relations, technology and the environment, education, media, and the comparative interdisciplinary analyses of societies. Many courses are directly relevant to majors in other fields, including economics, political science, philosophy, literature, criminal justice, and business.

The major in sociology or cultural anthropology seeks to prepare students for careers in public or private service, including such fields as law, teaching, social work, administration or management, and research.

## Transferring to the Major

Students transferring during the freshman year must meet college standards.

Students transferring after the freshman year must:

1. Have completed three courses in anthropology or sociology with a grade of C or better.
2. Have a cumulative GPA of at least 2.000.
3. Meet the department's criteria for admission and availability of space in the programs.

## Academic Progression Standards

Same as college standards.

## BA in Sociology

NU CORE REQUIREMENTS
See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## SOCIOLOGY MAJOR REQUIREMENTS

Courses in the major require a grade of C - or higher.

## Required Sociology

Complete the following four courses. SOCL 2300, SOCL 2320, and SOCL 2321 require a grade of C or higher:
SOCL 1101 Introduction to Sociology
4 SH
SOCL 2300 Social Theory
4 SH
SOCL 2320 Statistical Analysis in Sociology
4 SH
SOCL 2321 Research Methods in Sociology
4 SH

## Cultural Anthropology

Complete the following course:
ANTH $1101 \quad$ Peoples and Cultures 4 SH
Senior Seminar
Complete the following senior seminar:
SOCL 4600 Senior Seminar

## REQUIRED SOCIOLOGY ELECTIVES

Introductory-Level Electives
Complete four courses in the following range:
SOCL 1200 to SOCL 1999
Intermediate-Level Electives
Complete two courses in the following range:
SOCL 2000 to SOCL 3999

## Advanced-Level Electives

Complete one course in the following range:
SOCL 4000 to SOCL 4999

## Social Science Electives

Complete four courses from the following subject areas. Social science electives may not include music or art:
AFAM, AFRS, ANTH, ECON, HIST, HUSV, INTL, LING, POLS, or PSYC.

## SOCIOLOGY EXPERIENTIAL EDUCATION REQUIREMENT

Complete one of the following courses or a study abroad: SOCL $3470 \quad$ Social Conflict and Community Service
SOCL 3487 Applied Sociology: Practice and Theory
SOCL 4970 Junior/Senior Honors Project 1 SH
SOCL 4971 Junior/Senior Honors Project 2 SH
SOCL 4996 Experiential Education Directed Study

## SOCIOLOGY MAJOR CREDIT REQUIREMENT

Complete 68 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Sociology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## SOCIOLOGY MAJOR REQUIREMENTS

Courses in the major require a grade of C - or higher.
Required Sociology
Complete the following four courses. SOCL 2300, SOCL 2320, and SOCL 2321 require of grade of C or higher:
SOCL 1101 Introduction to Sociology 4 SH
SOCL $2300 \quad$ Social Theory 4 SH
SOCL $2320 \quad$ Statistical Analysis in Sociology 4 SH
SOCL $2321 \quad$ Research Methods in Sociology 4 SH

## Cultural Anthropology

Complete the following course:
ANTH $1101 \quad$ Peoples and Cultures 4 SH

## Senior Seminar

Complete the following senior seminar:
SOCL 4600 Senior Seminar

## REQUIRED SOCIOLOGY ELECTIVES

Introductory-Level Electives
Complete four courses in the following range:
SOCL 1200 to SOCL 1999

## Intermediate-Level Electives

Complete four courses in the following range:
SOCL 2000 to SOCU 3999

## Advanced-Level Electives

Complete two courses in the following range:
SOCL 4000 to SOCL 4999

## Social Science Electives

Complete six courses from the following subject areas. Social science electives may not include music or art:
AFAM, AFRS, ANTH, ECON, HIST, HUSV, INTL, LING, POLS, or PSYC.

## SOCIOLOGY EXPERIENTIAL EDUCATION

 REQUIREMENTComplete one of the following courses or a study abroad:
SOCL $3470 \quad$ Social Conflict and Community 4 SH Service
SOCL $3487 \quad$ Applied Sociology: Practice and 4 SH
Theory
SOCL $4970 \quad$ Junior/Senior Honors Project 1 SH
SOCL 4971 Junior/Senior Honors Project 2 SH
SOCL 4996 Experiential Education Directed Study 4 SH
SOCIOLOGY MAJOR CREDIT REQUIREMENT
Complete 88 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BA in Cultural Anthropology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## CULTURAL ANTHROPOLOGY MAJOR REQUIREMENTS

## Cultural Anthropology

Complete the following five courses with a grade of C - or higher:

| ANTH 1101 | Peoples and Cultures | 4 SH |
| :--- | :--- | :--- |
| ANTH 2300 | Reading Culture through Ethnography | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 4600 | Senior Seminar in Cultural | 4 SH |
|  | $\quad$ Anthropology |  |
| SOCL 1101 | Introduction to Sociology | 4 SH |

## Advanced Anthropology Courses

Complete two of the following courses with a grade of C - or higher:

| ANTH 4500 | Latin American Society and <br> Development | 4 SH |
| :--- | :--- | :--- |
| ANTH 4505 | Native North Americans | 4 SH |
| ANTH 4510 | Anthropology of Africa | 4 SH |
| ANTH 4515 | Anthropology of South Asia | 4 SH |

## Anthropology Electives

Complete six courses from the following list: Two courses in study abroad may count toward this requirement:

| ANTH 2302 | Gender and Sexuality: A Cross- <br> Cultural Perspective | 4 SH |
| :--- | :--- | :--- |
| ANTH 2312 | The Anthropology of Masculinity | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 2330 | Environmental Anthropology | 4 SH |
| ANTH 2350 | Urban Anthropology | 4 SH |
| ANTH 2365 | Sport, Culture, and Society | 4 SH |
| ANTH 3415 | Anthropology of Travel and Tourism | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ANTH 4580 | Special Topics in Anthropology | 4 SH |
| LING 3412 | Language and Culture | 4 SH |

## Social Science Electives

Complete three social science courses from the following subject areas. Social science electives may not include music or art: AFAM, AFRS, ECON, HIST, HUSV, INTL, LING, POLS, PSYC, or SOCL.

## CULTURAL ANTHROPOLOGY EXPERIENTIAL EDUCATION REQUIREMENT

Complete one of the following courses or a study abroad:

| ANTH 4970 | Junior/Senior Honors Project 1 | 4 SH |
| :--- | :--- | :--- |
| ANTH 4971 | Junior/Senior Honors Project 2 | 4 SH |
| ANTH 4996 | Experiential Education Directed Study | 4 SH |

## CULTURAL ANTHROPOLOGY MAJOR CREDIT REQUIREMENT <br> Complete 68 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Cultural Anthropology

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## CULTURAL ANTHROPOLOGY MAJOR REQUIREMENTS

## Cultural Anthropology

Complete the following five courses with a grade of C- or higher:

| ANTH 1101 | Peoples and Cultures | 4 SH |
| :--- | :--- | :--- |
| ANTH 2300 | Reading Culture through Ethnography | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 4600 | Senior Seminar in Cultural <br>  <br> Anthropology | 4 SH |
| SOCL 1101 | Introduction to Sociology | 4 SH |

## Advanced Anthropology Courses

Complete two of the following courses with a grade of C - or higher:

| ANTH 4500 | Latin American Society and <br> Development | 4 SH |
| :--- | :--- | :--- |
| ANTH 4505 | Native North Americans | 4 SH |
| ANTH 4510 | Anthropology of Africa | 4 SH |
| ANTH 4515 | Anthropology of South Asia | 4 SH |

## Anthropology Electives

Complete six courses from the following list. Two courses in study abroad may count toward this requirement:

| ANTH 2302 | Gender and Sexuality: A Cross- <br> Cultural Perspective | 4 SH |
| :--- | :--- | :--- |
| ANTH 2312 | The Anthropology of Masculinity | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |


| ANTH 2350 | Urban Anthropology | 4 SH |
| :--- | :--- | :--- |
| ANTH 2365 | Sport, Culture, and Society | 4 SH |
| ANTH 3415 | Anthropology of Travel and Tourism | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ANTH 4580 | Special Topics in Anthropology | 4 SH |
| LING 3412 | Language and Culture | 4 SH |

## Social Science Electives

Complete six social science courses from the following subject areas. Social science electives may not include music or art: AFAM, AFRS, ECON, HIST, HUSV, INTL, LING, POLS, PSYC, or SOCL.

## Additional Anthropology Electives

Complete two additional ANTH courses.

## CULTURAL ANTHROPOLOGY EXPERIENTIAL EDUCATION REQUIREMENT

Complete one of the following courses or a study abroad:

| ANTH 4970 | Junior/Senior Honors Project 1 | 4 SH |
| :--- | :--- | :--- |
| ANTH 4971 | Junior/Senior Honors Project 2 | 4 SH |
| ANTH 4996 | Experiential Education Directed Study | 4 SH |

## CULTURAL ANTHROPOLOGY MAJOR CREDIT REQUIREMENT

Complete 88 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BA in International Affairs and Anthropology

See page 145.

## Minor in Sociology

## INTRODUCTION TO SOCIOLOGY

Complete the following course:
SOCL 1101 Introduction to Sociology 4 SH

## RESEARCH METHODS

Complete one of the following courses. An intermediate- or advanced-level elective may be substituted for SOCL 2321 if taken for the major:

| SOCL 2300 | Social Theory | 4 SH |
| :--- | :--- | :--- |
| SOCL 2321 | Research Methods in Sociology | 4 SH |

## INTRODUCTORY-LEVEL REQUIRED ELECTIVES

Complete two courses in the following range:
SOCL 1200 to SOCL 1299

## INTERMEDIATE-/ADVANCED-LEVEL REQUIRED ELECTIVE <br> Complete one course in the following range: <br> SOCL 3400 to SOCL 4599 <br> GPA REQUIREMENT <br> 2.000 GPA required in the minor

## Minor in Cultural Anthropology

## REQUIRED COURSES

Complete the following two courses:

| ANTH 1101 | Peoples and Cultures | 4 SH |
| :--- | :--- | :--- |
| ANTH 2300 | Reading Culture through Ethnography | 4 SH |

INTERMEDIATE-LEVEL REQUIRED ELECTIVES
Complete two courses in the following range:
ANTH 2300 to ANTH 3999

## ADVANCED-LEVEL REQUIRED ELECTIVE <br> Complete one course in the following range: <br> ANTH 4500 to ANTH 4599 <br> GPA REQUIREMENT <br> 2.000 GPA required in the minor

## THEATRE

nuweb.neu.edu/theatre

Janet Bobcean, MFA
Associate Professor and Chair

Office: 180 Ryder Hall
Phone: 617.373.2244
Fax: 617.373.4149
E-mail contact: Carol Najarian, Administrative Secretary, c.najarian@neu.edu

The study of theatre-as performance, visual expression, text, theory, and history-at Northeastern University balances production theory and practice. In the theatre production laboratory, students (majors and nonmajors) are involved in experiential learning that synthesizes the ideas, theories, and practices studied in the classroom. All theatre majors participate in laboratory and public performances.

A theatre major may petition to enter the concentration in performance, the concentration in production, or the generalist option. Opportunities exist for independent projects, internships, and co-op experiences.

Theatre majors may pursue advanced study in graduate or professional programs, careers as theatre practitioners, or careers in theatre education.

## Transferring to the Major

Acceptance into the major is based on the student's meeting the department's criteria for admission and on availability of space in the program.

## Academic Progression Standards

Students must receive a minimum grade of 2.000 in major courses. The following courses must be taken by the end of the fourth semester (third semester for transfer students):

| THTR 1101 | Art of the Theatre | 4 SH |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 SH |
| THTR 1131 | Technical Theatre 1 | 4 SH |
| THTR 1270 | Theatrical Design | 4 SH |
| THTR 2300 | Theatre History | 4 SH |
| THTR 4804 | Theatre Practicum (repeatable course, <br> to be taken twice) | 1 SH |
|  |  |  |

Failure to meet these standards will result in departmental probation. Three consecutive semesters on probation will result in dismissal from the major.

## BA in Theatre

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

See page 41 for requirement list.

## THEATRE MAJOR REQUIREMENTS

A minimum grade of C is required for all theatre courses.

## Theatre Background and History

Complete the following two courses:

| THTR 1101 | Art of the Theatre | 4 SH |
| :--- | :--- | :--- |
| THTR 2300 | Theatre History | 4 SH |
| Onstage <br> Complete the following three courses: |  |  |
| THTR 1120 Acting 1 |  |  |
| THTR 2325 | Script Analysis for the Stage | 4 SH |
| THTR 3550 | Concepts of Directing | 4 SH |
|  |  | 4 SH |

## Backstage

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| THTR 1131 | Technical Theatre 1 | 4 SH |
| THTR 1270 | Theatrical Design | 4 SH |

## Practicum

Complete the following (repeatable) courses three times:
THTR 4804 Theatre Practicum

## History/Literature/Criticism

Complete the following three courses:

| THTR 1210 | Theatre and Society | 4 SH |
| :--- | :--- | :--- |
| THTR 2315 | Theatre/Modernism | 4 SH |
| THTR 3500 | Dramatic Theory/Criticism | 4 SH |

## Rehearsal and Performance

Complete the following two courses:

| THTR 4701 | Rehearsal and Performance | 4 SH |
| :--- | :--- | :--- |
| THTR 4702 | Capstone Rehearsal and Performance | 4 SH |

## THEATRE CONCENTRATION

Complete the concentration in performance, the concentration in production, or general electives as indicated below. A minimum grade of C is required for all theatre courses.

## Concentration in Performance

Complete the following three courses:

| THTR 1250 | Voice and Movement 1 for Theatre | 4 SH |
| :---: | :---: | :---: |
| THTR 2342 | Acting 2 | 4 SH |
| THTR 2343 | Acting 3 | 4 SH |
| Concentration in Production |  |  |
| Complete the following course: |  |  |
| THTR 2365 | Technical Theatre 2 | 4 SH |
| and two additional courses from the following list: |  |  |
| THTR 2370 | Lighting Design for the Stage | 4 SH |
| THTR 2380 | Costume Design | 4 SH |
| THTR 2385 | Pattern Drafting and Costume Construction | 4 SH |
| THTR 3460 | Scenic Design for the Stage | 4 SH |
| THTR 3465 | Theatrical Drafting | 4 SH |

## Theatre General Electives

Complete three intermediate or advanced theatre courses: THTR 2300 to THTR 4699

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## THEATRE MAJOR CREDIT REQUIREMENT

Complete 63 semester hours in the major.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in Theatre

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## THEATRE MAJOR REQUIREMENTS

A minimum grade of C is required for all theatre courses.
Theatre Background and History
Complete the following two courses:
THTR $1101 \quad$ Art of the Theatre 4 SH
THTR 2300 Theatre History 4 SH

## Onstage

| Complete the following three courses: |  |  |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 SH |
| THTR 2325 | Script Analysis for the Stage | 4 SH |
| THTR 3550 | Concepts of Directing | 4 SH |

## Backstage

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| THTR 1131 | Technical Theatre 1 | 4 SH |
| THTR 1270 | Theatrical Design | 4 SH |

## Practicum

Complete the following repeatable course three times:
THTR 4804 Theatre Practicum

## History/Literature/Criticism

Complete the following three courses:

| THTR 1210 | Theatre and Society | 4 SH |
| :--- | :--- | :--- |
| THTR 2315 | Theatre/Modernism | 4 SH |
| THTR 3500 | Dramatic Theory/Criticism | 4 SH |

## Rehearsal and Performance

Complete the following two courses:

| THTR 4701 | Rehearsal and Performance | 4 SH |
| :--- | :--- | :--- |
| THTR 4702 | Capstone Rehearsal and Performance | 4 SH |

## THEATRE CONCENTRATION

Complete the concentration in performance, the concentration in production, or general electives as indicated below. A minimum grade of C is required for all theatre courses.

## Concentration in Performance

Complete the following three courses:
THTR $1250 \quad$ Voice and Movement 1 for Theatre 4 SH
THTR 2342 Acting 24 SH
THTR 2343 Acting 3 SH

## Concentration in Production

| Complete the following course: |  |  |
| :---: | :---: | :---: |
| THTR 2365 | Technical Theatre 2 | 4 SH |
| and two additional courses from the following list: |  |  |
| THTR 2370 | Lighting Design for the Stage | 4 SH |
| THTR 2380 | Costume Design | 4 SH |
| THTR 2385 | Pattern Drafting and Costume Construction | 4 SH |
| THTR 3460 | Scenic Design for the Stage | 4 SH |
| THTR 3465 | Theatrical Drafting | 4 SH |

## Theatre General Electives

Complete three intermediate or advanced theatre courses: THTR 2300 to THTR 4699

## EXPERIENTIAL LEARNING

Complete one course in experiential education. Please see department for approved courses.

## THEATRE MAJOR CREDIT REQUIREMENT

Complete 63 semester hours in the major.

## UPPER-DIVISION ELECTIVES

Complete three general electives at 3000 -level or above.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BS in American Sign Language and Theatre

See page 57.

## BA in Cinema Studies and Theatre

See page 95.

## BS in Cinema Studies and Theatre

See page 96.

## Minor in Theatre

Note: No student may receive a theatre minor as a result of external transfer credit only.

## REQUIRED COURSES

Complete the following five courses:

| THTR 1101 | Art of the Theatre | 4 SH |
| :--- | :--- | :--- |
| THTR 1130 | Actors and Acting | 4 SH |
| THTR 1131 | Technical Theatre 1 | 4 SH |
| THTR 1210 | Theatre and Society | 4 SH |
| THTR 4701 | Rehearsal and Performance | 4 SH |

## ELECTIVE COURSES

Complete two of the following courses:
THTR $1270 \quad$ Theatrical Design 4 SH
THTR $2300 \quad$ Theatre History 4 SH

THTR $2325 \quad$ Script Analysis for the Stage 4 SH
THTR 2344 Intermediate Acting 4 SH
THEATRE PRACTICUM
Complete the following course:
THTR 4804 Theatre Practicum 1 SH
GPA REQUIREMENT
2.000 GPA required in the minor

## Minor in Musical Theatre

Note: "TBD" stands for "to be determined."

## REQUIRED COURSES

Complete the following three courses:

| THTR 1130 | Actors and Acting | 4 SH |
| :--- | :--- | :--- |
| THTR 2310 | American Musical Theatre | 4 SH |
| THTR 3570 | Musical Theatre Technique | 4 SH |

## MUSIC THEORY

Complete one of the following courses:

| MUSC 1119 | Fundamentals of Western Music | 4 SH |
| :--- | :--- | :--- |
|  | Theory |  |
| MUSC 1201 | Music Theory 1 | 4 SH |
| TBD | Learning to Read Music <br> (pending approval) | 4 SH |
|  |  |  |

MUSIC THEATRE ELECTIVES
Complete two courses from the following list:

| MUSC 1101 | Introduction to Music | 4 SH |
| :--- | :--- | :--- |
| MUSC 1107 | Introduction to Opera | 4 SH |
| MUSC 1109 | Introduction to Art, Drama, and Music | 4 SH |
| MUSC 2210 | Songwriting | 4 SH |
| THTR 1101 | Art of the Theatre | 4 SH |
| THTR 1270 | Theatrical Design | 4 SH |
| THTR 2325 | Script Analysis for the Stage | 4 SH |
| THTR 2330 | Playwriting 1 | 4 SH |
| THTR 2344 | Intermediate Acting | 4 SH |

VOICE, COMPOSITION, OR THEATRE
Complete one of the following courses:

| MUSC 1901 | Music Lessons 1 | 1 SH |
| :--- | :--- | :--- |
| MUSC 1903 | Composition Lessons | 1 SH |
| THTR 4804 | Theatre Practicum | 1 SH |

GPA REQUIREMENT
2.000 GPA required in the minor

## Bouvé College of Health Sciences

Stephen R. Zoloth, PhD, Dean

Susan Cassell, BA, Advising and Technology Associate
Debra Gaglias, MS, Academic Advisor
Suzanne Greenberg, MS, Associate Dean and Director of the Graduate School
Christine Letzeiser, MS, RN, Assistant Dean of Enrollment Management and First-Year Students/Office of Student Services
Jessica L. Moore, EdM, Academic Advisor, Coordinator of School of Health Professions Advising
Margaret K. Schnabel, Director of Graduate Student Services
Cynthia Seltzer, MA, Academic Advisor
Anne M. Sullivan, MEd, Assistant Dean for Administrative Affairs
Nancy P. Warner, MS, Associate Director, Office of Student Services, and Academic Advisor

Dean’s Office: 215 Behrakis Health Sciences Center
Phone: 617.373.3323
Fax: 617.373.3030

Undergraduate Programs Office: 120 Behrakis Health
Sciences Center
Phone: 617.373.3320
Fax: 617.373.8994

Thhe programs in Bouvé College of Health Sciences combine experiential and cooperative education opportunities with highly innovative academic curricula that are designed to meet the demand for well-educated allied health professionals, nurses, and pharmacists. The college seeks to prepare students to become effective professional practitioners, enter graduate schools, and work in many areas responsible for the delivery of health care.

There are three schools within the Bouvé College of Health Sciences: the School of Nursing, the School of Pharmacy, and the School of Health Professions, which comprises the following majors: athletic training, cardiopulmonary and exercise sciences, health science, medical laboratory science, physical therapy, and speech-language pathology and audiology. The college offers students a health-care education that features a curriculum of highly relevant and closely integrated basic courses in the physical, biological, behavioral, and administrative sciences; onsite involvement in clinical patient care, including introductory and advanced pharmacy practice experiences and clinical experiences in nursing, physical therapy, and other health professions; experiential education opportunities; a cooperative

## www.bouve.neu.edu

education work program; and a commitment to the search for and advancement of new and progressive concepts, ideas, and philosophies of education and professional practice.

Each of the programs offered by the college is accredited by the appropriate professional group. The college is a member of the Association of Schools of Allied Health Professions, the American Association of Colleges of Nursing, and the American Association of Colleges of Pharmacy.

## Academic Requirements

Students are responsible for following the curriculum plan for their major, pattern of attendance, and graduation year. Students are responsible for monitoring their own progress through the curriculum by registering for the courses stipulated by their curriculum plan, knowing course prerequisites, regularly checking the degree audit system, and knowing the sanctions for unsatisfactory academic progress. Any exceptions to a student's curriculum plan must be approved by their academic advisor.

## COLLEGE ACADEMIC STANDARDSPROFESSIONAL COURSES

Students must receive a grade of C or better in professional courses.

Professional courses are required courses taught within the major/college as identified by course subject code: ATHT, CAEP, EXSC, HLTH, HSCI, MLBS, NRSG, PHMD, PHSC, PHTH, PT, SLPA, TOXC.

Courses in the above-listed subjects that are taken as electives are exempt from the C or better rule and the University's minimum satisfactory grade will be accepted.

## COLLEGE ACADEMIC STANDARDSPROFESSIONAL PREREQUISITES

Students must receive a grade of C- or better in selected professional prerequisites, as delineated below:

- Athletic Training: BIOL, CHEM, MATH, PHSC, PHYS
- Cardiopulmonary and Exercise Sciences: BIOL, CHEM, MATH, PHSC, PHYS
- Health Science: BIOL, CHEM, MATH
- Medical Laboratory Science: BIOL, CHEM, MATH, PHYS
- Nursing: BIOL, CHEM, MATH; A grade of C or better is required for PSYC 3404
- Pharmacy: BIOL, CHEM, MATH, PHYS

Pharmacy students must receive a grade of C or better in professional prerequisites beginning in the second year of the curriculum.

- Physical Therapy: BIOL, CHEM, EXSC, MATH, PHYS, PSYC Effective with the fall 2006 entering class, physical therapy students must receive a grade of $C$ or better in professional prerequisites beginning in the second year of the curriculum.
- Speech-Language Pathology and Audiology: BIOL, MATH, PHYS, PSYC 1101

Courses in the above-listed subjects that are taken as electives are exempt from the C - or better rule and the University's minimum satisfactory grade will be accepted.

## COLLEGE ACADEMIC STANDARDS—ALL OTHER COURSES

The University's minimum passing grade for the course will be accepted. Please note: The University requires a minimum grade of C for ENGL 1111 and ENGL 3306.

## PROGRESSION WITHIN BOUVÉ

- First-year students must complete at least 27 semester hours and meet all major prerequisite course requirements in order to progress to sophomore status. First-year students who earn fewer than the semester hours stipulated by the curriculum plan for their major must make up the difference prior to graduation.
- In order to progress into the subsequent year of professional courses, students must have completed all professional prerequisites with a grade of C - or better (except for pharmacy and physical therapy, which require a C in professional prerequisites beginning in the second year).
- In order to progress into the subsequent semester of professional courses, students must have completed all professional courses with a grade of C or better.
- Effective with the fall 2009 entering class, pharmacy students must receive a grade of C or better in professional prerequisites beginning in the second year, have satisfactorily completed all courses in years one and two of the curriculum, and have an overall GPA of 2.700 or better to progress from second- to third-year status. In addition, students must demonstrate good verbal and written communication skills, understanding of the pharmacy profession, and a commitment to patient care, based on criteria set by the Doctor of Pharmacy Program.
- Physical therapy students must receive a grade of C or better in professional prerequisites beginning in the second year and have a 2.700 overall GPA at the end of summer 2 semester of the fourth year to progress to the fifth year of the program. Students must maintain an overall GPA of 3.000 during the sixth year of the program.
- Physical therapy students entering prior to fall 2006 are required to have a 2.670 overall GPA at the end of summer 2 semester of the fourth year to progress to the fifth year of the program. Students must maintain an overall GPA of 3.000 during the sixth year of the program.
- Students who incur an incomplete grade in a prerequisite course must obtain approval from their academic advisor, upon consultation with the department faculty, prior to progression into the subsequent course(s).
- Students dismissed administratively from the English Language Center are not eligible for the Bouvé program to which they were conditionally admitted.


## CRITERIA FOR UNIVERSITY ACADEMIC PROBATION

Note: Notation of academic probation will appear on internal record but not on permanent transcript.

Students in the Bouvé College of Health Sciences will be placed on academic probation effective the following academic semester for any of the reasons noted below:

## First-year Students:

- Not earning at least 12 semester hours in the second semester of the first year.
- Not maintaining an overall cumulative GPA of at least 1.800 at the end of the two semesters of the first-year curriculum.


## Upperclass and Transfer Students:

Not earning at least 12 semester hours in the semester just completed. Not maintaining an overall cumulative GPA of at least 2.000 at the end of each academic semester.

## ACADEMIC DISMISSAL FROM MAJOR

Students in the Bouvé College of Health Sciences will be dismissed from their major effective the following academic semester for any of the reasons noted below:

- Failure to earn a grade of C or better in three professional courses, regardless of remediation. Lecture and clinical/lab components for the same class are considered as one professional course failure.
- Effective with the fall 2008 entering class for nursing students, failure to earn a grade of C or better in two professional/clinical courses, regardless of remediation.
- Effective with the fall 2009 entering class for pharmacy students, failure to satisfy academic progression standards.
- Failure to earn the minimum required grade in the same course twice.

Note: Students dismissed from their major but who are otherwise in good standing with the University are allowed to remain at Northeastern University for up to two semesters as a provisional Bouvé student, by the end of which the student is expected to move into a new major. Otherwise, the student will be dismissed from the University.

## ACADEMIC DISMISSAL FROM UNIVERSITY

Students who remain on probation after two academic semesters may be dismissed from the University. Notation of this academic dismissal action will appear on the permanent transcript.

## ACADEMIC APPEALS

Students who believe that they were erroneously, capriciously, or otherwise unfairly treated in an academic or cooperative education decision may petition to appeal the decision. Refer to the Bouvé Undergraduate Student Manual, which details the Bouvé College of Health Sciences Appeals Process, and the Northeastern University Student Handbook, which details the University Undergraduate Student Academic Appeals Procedures.

HEALTH SCIENCES
www.northeastern.edu/bouve/programs/bhealthsci.html

Mary E. Watson, EdD, RRT
Associate Professor and Interim Chair of Health Sciences

Office: 316 Robinson Hall
Phone: 617.373.3666
Fax: 617.373.2968
E-mail contact: Mary E. Watson, Associate Professor and Interim Chair, m.watson@neu.edu

The Department of Health Sciences offers a BS degree program in health science and minors in exercise physiology and in health science.

## Health Science

The rapidly changing health system is creating a demand for broadly educated graduates possessing a strong understanding of health, health care, and community-service-related issues. Individuals with these skills are needed by public and private agencies, public health services, hospitals and other nonprofit and for-profit companies, and health-related organizations. The health science major is a preprofessional program designed to provide students with the appropriate background and preparation for entry into graduate and professional programs such as: medicine, dentistry, veterinary medicine, public health, physician assistant, exercise physiology, and social work. The major is also designed for students who are seeking a general preparation for positions in health promotion, health administration, and community-based public health.

The health science curriculum is an integrated model that builds upon a foundation of the social sciences, natural sciences, and the liberal arts. All health science students have the option to complete the program with or without a co-op experience. Health science students complete an array of major courses that introduce them to the health-care system in the United States and provide them with the opportunity to develop an understanding of health policy and administration, health research, quality-of-care improvement and evidence-based health care. The curriculum includes a significant number of electives designed to enrich students' intellectual lives. Students will have an opportunity to identify a specific area of interest and may use the electives to
explore a declared focus or a formal minor that complements their health science studies. The entire academic experience is drawn together through a capstone project during the senior year. The capstone project is intended to provide students with a structured opportunity to broaden, deepen, and integrate the knowledge and skills acquired in prior courses and experiential activities.

## Minor in Health Science

The minor in health science is designed for undergraduate students from any discipline across the University wishing to expand and apply their understanding in public-health-related areas. The minor comprises five courses ( 20 credits) selected from courses offered within the health sciences major. The selection of courses is done in consultation with the health science program faculty.

## Minor in Exercise Physiology

This minor in exercise physiology is for undergraduate students from any discipline across the University wishing to expand their understanding of human physiology. Exercise physiology is a discipline that examines the short- and long-term responses to exercise and benefits of exercise training for healthy persons as well as persons with chronic diseases such as heart disease, pulmonary diseases, diabetes, obesity, etc. Undergraduate students from many disciplines could broaden their understanding of human physiology and the role of exercise in health promotion, disease prevention, and rehabilitation with a minor in exercise physiology. Students who elect a minor in exercise physiology may then apply to the MS in clinical exercise physiology upon graduation.

## BS in Health Science

Note: Students pursuing premed track should consult advisor for additional guidance.

## YEAR 1

## American Health Care

Complete the following course
PHTH 1260 The American Health-Care System

## Freshman Seminar

Complete the following course
HSCI $1000 \quad$ College: An Introduction

## General Biology 1 and 2

Complete the following two courses with corresponding labs:
BIOL $1111 \quad$ General Biology 1 SH
with BIOL 1112 Lab for BIOL 11111 SH
BIOL $1113 \quad$ General Biology 2 SH
with BIOL 1114 Lab for BIOL 11131 SH
Mathematics
Complete the following course:
MATH $1241 \quad$ Calculus 1
4 SH

## General Chemistry 1

Complete one of the following courses with corresponding lab:

| CHEM 1101 | General Chemistry for Health <br> Sciences | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1102 | Lab for CHEM 1101 | 1 SH |
| CHEM 1211 | General Chemistry 1 | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH |

General Chemistry 2
Complete one of the following courses with corresponding lab:

CHEM 1104 | Organic Chemistry for Health |
| :---: |
| Sciences |

with CHEM 1105 Lab for CHEM 11041 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH

## Foundations of Psychology

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH
College Writing
Complete the following course with a grade of C or higher:
ENGL 1111 College Writing
YEAR 2

## Community and Public Health

Complete the following course:
PHTH $2350 \quad$ Community and Public Health 4 SH

## Anatomy and Physiology 1 and 2

Complete the following two courses with corresponding labs:
BIOL 1117 Integrated Anatomy and Physiology $1 \quad 4$ SH
with BIOL 1118 Lab for BIOL 11171 SH
BIOL 1119 Integrated Anatomy and Physiology 24 SH
with BIOL 1120 Lab for BIOL 11191 SH

## Statistics and Software

Complete the following course:
MATH $2280 \quad$ Statistics and Software 4 SH

## Nutrition

Complete the following course:
HSCI 1105 Nutrition

## Professional Development for Co-op

Complete the following course:
HSCI $2000 \quad$ Professional Development for Bouvé 1 SH Co-op

## Basic Clinical Skills

Complete the following course with corresponding lab:
HLTH $1200 \quad$ Basic Skills for the Health-Care
Professional
with HLTH 1201 Lab for HLTH $1200 \quad 1$ SH

## Program Electives 1 and 2

Complete two courses selected in consultation with your advisor as part of your declared track of study.

YEAR 3 (4-YEAR OPTION)
YEARS 3 AND 4 (5-YEAR CO-OP OPTION)
Advanced Writing in the Health Professions
Complete the following course with a grade of C or higher:
ENGL $3306 \quad$ Advanced Writing in the Health 4 SH Professions

## Communications for Health Professions

Complete the following course:

PHTH $2300 \quad$| Communication Skills for the Health 4 SH |
| :--- |
| Professions |

## Health-Care Research

Complete the following course:
HLTH $3450 \quad$ Health-Care Research 4 SH
Moral Problems of Medicine
Complete the following course:

PHIL $1165 \quad$| Moral and Social Problems in Health |
| :---: |
| Care |

## Program Electives 3-6

Complete four courses selected in consultation with your advisor as part of your declared track of study.

## FINAL YEAR

Race, Ethnicity, and Health (Comparative Study of Cultures)
Complete the following course (which satisfies the NU Core comparative study of cultures requirement):

PHTH $5120 \quad$| Race, Ethnicity, and Health in the |
| :--- |
| United States |

## Health-Care Management

Complete the following course:
PHTH $4511 \quad$ Health-Care Management 4 SH
Health Policy
Complete the following course:
PHTH $4515 \quad$ Health Policy: Public Health in Crisis 4 SH
Health Education and Program Planning
Complete the following course:
PHTH $5540 \quad$ Health Education and Program 4 SH Planning

## Health Science Capstone Project

Complete the following course:
HSCI $4710 \quad$ Health Science Capstone 4 SH

## Electives

Complete four general electives.
HEALTH SCIENCE MAJOR GRADE REQUIREMENT
A grade of C or higher is required in all health science courses.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

If elected

## UNIVERSITY-WIDE REQUIREMENTS

135 total semester hours required
Minimum 2.000 GPA required

## BS in Health Science/MPH—Master of Public Health

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Minor in Health Science

## REQUIRED COURSES

Complete five of the following courses:

| HLTH 3450 | Health-Care Research | 4 SH |
| :---: | :---: | :---: |
| HSCI 1105 | Nutrition | 4 SH |
| PHTH 1260 | The American Health-Care System | 4 SH |
| PHTH 2300 | Communication Skills for the Health Professions | 4 SH |
| PHTH 2350 | Community and Public Health | 4 SH |
| PHTH 4511 | Health-Care Management | 4 SH |
| PHTH 4515 | Health Policy: Public Health in Crisis | 4 SH |
| PHTH 5120 | Race, Ethnicity, and Health in the United States | 4 SH |
| PHTH 5540 | Health Education and Program Planning | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Exercise Physiology

A minimum grade of C is required in all courses taken toward the minor.

## REQUIRED COURSES

Complete the following five courses with corresponding labs, as indicated:

| EXSC 4500 | Exercise Physiology 1 | 4 SH |
| :--- | :--- | :--- |
| with EXSC 4501 | Lab for EXSC 4500 | 1 SH |
| EXSC 4502 | Exercise Testing and Prescription | 4 SH |
| EXSC 4504 | Clinical Kinesiology | 4 SH |
| EXSC 6220 | Exercise Physiology | 3 SH |
| HLTH 1200 | Basic Skills for the Health-Care <br> Professional | 2 SH |
| with HLTH 1201 | Lab for HLTH 1200 | 1 SH |

Meredith H. Harris, EdD, PT
Associate Professor and Chair

Office: 6 Robinson Hall
Phone: 617.373.3160
Fax: 617.373.7930
E-mail contact: Meredith H. Harris, Associate Professor and Chair, m.harris@neu.edu

Thhe mission of the physical therapy program is to foster the development of health-care professionals who practice the values of integrity, professional duty, social responsibility, excellence, accountability, altruism, caring, and compassion. Through our unique approach to learning, which includes cooperative education, the DPT program offers a rich environment that promotes lifelong personal and professional development in which students and faculty can engage to generate new knowledge through research. Graduates of our program are prepared to become reflective, evidence-based practitioners capable of responding to the changing needs of a complex world. The physical therapy program is designed to prepare its graduates to provide quality patient care in a time of changing concepts, trends, and challenges. Students are encouraged to help clients gain independence and to recognize and manage the emotional and socioeconomic problems that affect recovery.

The program in physical therapy has three admission points: freshman, transfer, or as a graduate student with a baccalaureate degree in a field other than physical therapy. The duration of the program is six years for freshman entry, four years for transfer or postbaccalaureate entry. The terminal degree for the program is the Doctor of Physical Therapy (DPT) degree. Cooperative education is unique to and the hallmark of Northeastern University. Ongoing professional development is accomplished through integration of the combination of classroom and experiential activities. Students of physical therapy alternate semesters of academic study with semesters of cooperative education work experience. Students may be employed as physical therapy co-op students with increasing responsibilities commensurate with their academic studies, or they may perform other health-related duties. These experiences provide an opportunity for the application and reinforcement of the lessons learned in the classroom and laboratory. Prior to graduation, students have twelve months of work experience incorporated into the academic program.

Students also have the opportunity to work with faculty to conduct ongoing research and to participate in community service learning.

In addition to cooperative education, the program includes thirty weeks of clinical education. Clinical education allows the student to practice professional skills under the supervision of a
licensed physical therapist. Clinical sites across the United States, offering a wide range of specialties, participate in our clinical education program. Every effort is made to accommodate individual circumstances, but students should be prepared to travel out of state for two of the three clinical courses. Availability of a car may be required, as most sites are not accessible by public transportation. All expenses associated with clinical education, including travel and housing, are the responsibility of the student.

Physical therapists provide services to patients and clients who have impairments, functional limitations, disabilities, or changes in physical function resulting from injury, disease, or other causes. In addition, physical therapists are involved in wellness initiatives, including screenings, health promotions, and educational activities that promote healthy lifestyles. They perform administrative duties and direct and supervise support personnel. Physical therapists interact and practice in collaboration with a variety of health-care professionals, including, but not limited to, physicians, dentists, nurses, educators, social workers, occupational therapists, speech-language pathologists, and audiologists.

Physical therapists function in a variety of settings, including community and university hospitals; rehabilitation centers; private practices; educational settings; extended-care facilities; freestanding outpatient clinics; home health agencies; and community, state, and federal agencies.

Students do not need to reapply to the DPT phase of the program, provided they meet the academic standards. To progress in the program, students must maintain acceptable standards of scholarship and academic performance as stated in the academic requirements section of this catalog. Students must develop appropriate motor skills, professional behavior, and emotional maturity.

The program in physical therapy is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.

Graduates of the Doctor of Physical Therapy program are eligible to sit for the Physical Therapy Licensure Examination.

## DPT—Doctor of Physical Therapy

Note: "TBD" stands for "to be determined."
YEAR 1
Introduction to College
Complete the following course:
PT $1000 \quad$ College: An Introduction

## Introductory English

Complete the following course with a grade of C or higher:
ENGL $1111 \quad$ College Writing 4 SH
Mathematics
Complete the following course:
MATH 1241 Calculus 1
4 SH

## Psychology

Complete the following two courses:

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3404 | Developmental Psychology | 4 SH |

Chemistry
Complete the following two courses with corresponding labs:

| CHEM 1101 | General Chemistry for Health <br> Sciences | 4 SH |
| :--- | :--- | :--- |
| with CHEM 1102 | Lab for CHEM 1101 | 1 SH |
| CHEM 1104 | Organic Chemistry for Health <br> Sciences | 4 SH |
| with CHEM 1105 | Lab for CHEM 1104 | 1 SH |

## Free Electives

Complete any two courses outside physical therapy. Only one remedial or education course may be applied to the entire program.

## YEAR 2

## Professional Development

Complete the following course:

HSCI $2000 \quad$| Professional Development for Bouvé |
| :--- |
| Co-op |

## Anatomy and Physiology

Complete the following two courses with corresponding labs:
BIOL 1117 Integrated Anatomy and Physiology $1 \quad 4$ SH
with BIOL 1118 Lab for BIOL 11171 SH
BIOL $1119 \quad$ Integrated Anatomy and Physiology 24 SH
with BIOL 1120 Lab for BIOL 11191 SH

## Physics

Complete the following two courses with corresponding labs:
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH
PHYS $1147 \quad$ Physics for Life Sciences $2 \quad 4$ SH
with PHYS 1148 Lab for PHYS $1147 \quad 1$ SH

## Statistics

Complete the following course:
MATH $2280 \quad$ Statistics and Software 4 SH
Physical Therapy Foundations
Complete the following course with corresponding lab:
HLTH $1200 \quad$ Basic Skills for the Health-Care 2 SH Professional
with HLTH 1201 Lab for HLTH $1200 \quad 1$ SH

## Free Electives

Complete any three courses outside physical therapy. Only one remedial or education course may be applied to the entire program.

## YEAR 3

## Gross Anatomy

Complete the following course with corresponding lab:
PT 5131 Gross Anatomy 4 SH
with PT $5132 \quad$ Lab for PT $5131 \quad 1$ SH

## Kinesiology

Complete the following course with corresponding lab:

| PT 5133 | Kinesiology |
| :--- | :---: |
| with PT 5134 | Lab for PT 5133 |
| Professional Seminar |  |
| Complete the following course: |  |
| PT 5135 | Physical Therapy Professional |
|  | Seminar 1 |

Psychosocial Management
Complete the following course:
HLTH $5174 \quad$ Psychosocial Management
Therapeutic Modalities
Complete the following course with corresponding lab:
PT 5104 Therapeutic Modalities
1 SH
with PT 5105 Lab for PT 5104

## Exercise Physiology

Complete the following course with corresponding lab:
EXSC $4500 \quad$ Exercise Physiology 1 SH
with EXSC 4501 Lab for EXSC 4500
Pharmacology
Complete the following course:
TBD (pending approval)

## Pathology

Complete the following course:
PT $5140 \quad$ Pathology

## Motor Control

Complete the following course with corresponding lab:
PT $5170 \quad$ Motor Control
with PT $5171 \quad$ Lab for PT 5170

## Neuroscience

Complete the following course with corresponding lab:
PT $5138 \quad$ Neuroscience 4 SH
with PT 5139 Lab for PT 51381 SH

## YEAR 4

Health-Care Research
Complete the following course:
HLTH 3450 Health-Care Research

## Cardiovascular and Pulmonary Management

Complete the following course with corresponding lab:

| PT 5503 | Cardiovascular and Pulmonary <br> Management | 4 SH |
| :--- | :--- | :---: |
| with PT 5504 | Lab for PT 5503 | 1 SH |

## Musculoskeletal Management 1

Complete the following course with corresponding lab:
PT $5505 \quad$ Musculoskeletal Management 1
with PT 5506 Lab for PT 5505

## Integumentary System and Advanced Modalities

Complete the following course with corresponding lab:

| PT 5515 | Integumentary Systems and Advanced <br> Modalities | 2 SH |
| :--- | :--- | :---: |
| with PT 5516 | Lab for PT 5515 | 1 SH |

## Clinical Integration 1: Evidence and Practice

Complete the following course with corresponding lab:
PT $5520 \quad$ Clinical Integration 1: Evidence and Practice
with PT $5521 \quad$ Case Studies for PT 5520
2 SH

1 SH

## Advanced Writing in the Disciplines

Complete the following course with a grade of C or higher:
ENGL $3306 \quad$ Advanced Writing in the Health 4 SH
Professions
YEAR 5-FALL, SPRING
Physical Therapy Project 1
Complete the following course:
PT $5227 \quad$ Physical Therapy Project $1 \quad 3$ SH

## Assistive Technology

Complete the following course with corresponding lab:

| PT 6215 | Assistive Technology | 3 SH |
| :--- | :--- | :--- |
| with PT 6216 | Lab for PT 6215 | 1 SH |

## Neurological Management

Complete the following two courses with corresponding labs:
PT 5209 Neurological Management 1 SH
with PT 5210 Lab for PT 52091 SH
PT 6221 Neurological Management 24 SH
with PT 6222 Lab for PT $6221 \quad 1$ SH

## Administration

Complete the following course:
PT $6219 \quad$ Physical Therapy Administration 4 SH

## Health Assessment

Complete the following course:
PT 6243 Health Assessment and Wellness 3 SH
Physical Therapy Project 2
Complete the following course:
PT $5229 \quad$ Physical Therapy Project 2 SH

## Professional Seminar 2

Complete the following course:
PT 5226 Physical Therapy Professional 2 SH Seminar 2
Integrative Physical Therapy Practice
Complete the following course:
PT 5228 Integrative Physical Therapy Practice 2 SH

## Musculoskeletal Management 2

Complete the following course with corresponding lab:
PT 6223 Musculoskeletal Management 24 SH
with PT $6224 \quad$ Lab for PT 62231 SH

## Graduate Elective

Complete one graduate elective.

## YEAR 5—SUMMER

Physical Therapy Business Management
Complete the following course:
PT $5351 \quad$ Physical Therapy Business 2 SH
Management

## Clinical Education 1

Complete the following course:

## PT 6441 Clinical Education 1

## Differential Diagnosis

Complete the following course:
PT $6240 \quad$ Differential Diagnosis in Physical
Therapy

## Advanced Topics

Complete two courses from the following list: PT 6231 to PT 6237

## YEAR 6

## Clinical Education 2

Complete the following ten-week clinical:
PT 6442 Clinical Education 2

## Clinical Education 3

Complete the following twelve-week clinical:
PT $6448 \quad$ Clinical Education 3

## Diagnostic Imaging

Complete the following course:
PT 6251 Diagnostic Imaging
3 SH

## PHYSICAL THERAPY MAJOR GRADE REQUIREMENT

A grade of C or higher is required in all physical therapy courses.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

209 total semester hours required
Minimum 2.000 GPA required

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY
www.northeastern.edu/bouve/programs/bspeechpath.html
Ralf W. Schlosser, PhD
Professor and Chair

Office: 106A Forsyth Building
Phone: 617.373.3698
Fax: 617.373.2239
E-mail contact: Karen O’Brien, Administrative Coordinator, ka.o’brien@neu.edu

Speech-language pathologists and audiologists are involved with the evaluation and treatment of, and counseling and research in, human communication and its disorders. The Speech-Language

Pathology and Audiology program is designed to help students develop entry-level competencies that will enable them to function in a preprofessional capacity in educational settings, medical and rehabilitation centers, and private practice clinics. Students will be exposed to a wide variety of communication disorders through observation and participation in activities at the Northeastern University Speech-Language and Hearing Center. This is a state-of-the-art facility in the new Behrakis building. Alongside their graduate student mentors, students are introduced to the basics of clinical practice and research. Externships in schools, hospitals, or other relevant settings are designed to broaden students' exposure and help prepare them for graduate study or employment. Students may also broaden their knowledge of health care practice by taking interdisciplinary courses with their colleagues in disciplines such as physical therapy, nursing, and pharmacy.

Speech-language pathologists and audiologists provide clinical services to a full range of communicatively impaired individuals, from infants through geriatrics. Speech-language pathologists treat disorders such as developmental language and articulation disorders; voice and resonance problems; stuttering; pediatric and adult swallowing disorders; and language and cognitive impairments due to stroke, head injury, and progressive neurological diseases. Audiologists specialize in the prevention, identification, assessment, and rehabilitation of hearing disorders. Individuals with congenital and acquired hearing impairments are seen for services by audiologists. They prescribe and dispense hearing aids and instruct individuals in the use of amplification. Undergraduate students take courses in both speech-language pathology and audiology in preparation for advanced training and specialization at the graduate level.

The Bachelor of Science degree program in speech-language pathology and audiology includes an experiential learning component, a broad-based academic core, and the scientific and clinical course work necessary for understanding normal and disordered communication. The degree offers preprofessional training for individuals who want to pursue graduate education in speech-language pathology and audiology. Alternately, graduates may be hired as speech and hearing assistants in a variety of clinical settings, or they may pursue other career paths in health care and education.

The speech-language pathology and audiology curriculum is designed to facilitate critical thinking, information literacy, and oral and written communication skills. In addition to course work in the basic communication sciences, course work is required in education, allied health, computer literacy, ethics, multicultural/diversity issues, and psychology. The curriculum provides a solid foundation in speech-language pathology and audiology and basic sciences, and it is sufficiently flexible to provide students with the opportunity to minor in an area of related interest. By taking five courses in the standard curriculum, students may earn a minor in psychology.

A unique aspect of the speech-language pathology and audiology program is a five-year accelerated program. Students who have maintained a GPA of 3.250 or better, who have a
departmental endorsement, and who have satisfied all graduate program admissions requirements may seek admission to this program in their third year. Students will, if successful, earn both a BS in speech-language pathology and audiology and an MS in speech-language pathology at the end of the program and meet national certification requirements. The accelerated program is selective and a restricted number of students are admitted each year.

## Academic Progression Standards

In order to progress from the freshman to sophomore year, the student must have a GPA of at least 1.800 and have completed 27 semester hours. In order to progress into the subsequent year of professional courses, the student must have a grade of C or better in all professional courses.

## BS in Speech-Language Pathology and Audiology

## SEMESTER 1

## Freshman Seminar

Complete the following course:
HSCI $1000 \quad$ College: An Introduction
1 SH

## Anatomy and Physiology 1

Complete the following course with corresponding lab:
BIOL 1117 Integrated Anatomy and Physiology $1 \quad 4$ SH
with BIOL 1118 Lab for BIOL 1117

## Introductory English

Complete the following course with a grade of C or higher:
ENGL $1111 \quad$ College Writing

## Calculus

Complete the following course:
MATH 1241 Calculus 1
Introduction to Speech and Hearing
Complete the following course:
SLPA 1101 Introduction to Speech and Hearing

## SEMESTER 2

Anatomy and Physiology 2
Complete the following course with corresponding lab:
BIOL $1119 \quad$ Integrated Anatomy and Physiology $2 \quad 4 \mathrm{SH}$
with BIOL 1120 Lab for BIOL 11191 SH
Foundations of Psychology
Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology

## Language Development

Complete the following course:
SLPA $1102 \quad$ Language Development 4 SH

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 3

## Phonetics

Complete the following course:
SLPA $1200 \quad$ Phonetics
4 SH
Introduction to Co-op
Complete the following course:
SLPA $2000 \quad$ Introduction to Co-op 1 SH

## Developmental Psychology

Complete the following course:
PSYC 3404 Developmental Psychology 4 SH
Physics 1
Complete the following course with corresponding lab:
PHYS $1145 \quad$ Physics for Life Sciences $1 \quad 4$ SH
with PHYS 1146 Lab for PHYS 11451 SH

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 4

## Advanced Writing in the Disciplines

Complete the following course with a grade of C or higher:
ENGL $3306 \quad$ Advanced Writing in the Health 4 SH

## Statistics and Software

Complete the following course:
MATH $2280 \quad$ Statistics and Software 4 SH
Cognition
Complete the following course:
PSYC $3466 \quad$ Cognition 4 SH
Clinical Research Directed Study
Complete the following course:
SLPA $4701 \quad$ Clinical Research Directed Study $\quad 1$ SH

## Education Elective

Complete one course from the following list or an alternative
education course:
PSYC $2358 \quad$ Behavior Therapies 4 SH
PSYC 3450 Learning and Motivation 4 SH

## SEMESTER 5 (SUMMER)

## Comparative Study of Cultures

Complete the following course (which satisfies the NU Core comparative study of cultures requirement):
ANTH $1101 \quad$ Peoples and Cultures 4 SH
or complete any course that satisfies the NU Core comparative study of cultures requirement.

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 6

## Health-Care Research

Complete the following course:

HLTH 5450 Health-Care Research
4 SH
Speech and Hearing Science
Complete the following course:
SLPA 1205 Speech and Hearing Science
4 SH
Introduction to Audiology
Complete the following course:
SLPA 1203 Introduction to Audiology
Anatomy and Physiology of the Vocal Mechanism
Complete the following course:
SLPA 1103 Anatomy and Physiology of the Vocal Mechanism

## SEMESTER 7 (SUMMER)

## General Electives

Complete two courses outside speech-language pathology and audiology. Courses toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 8

## Language Disorders

Complete the following course:
SLPA $4500 \quad$ Language Disorders in Adults

## Aural Rehabilitation

Complete the following course:
SLPA 6219 Aural Rehabilitation

## Clinical Procedures

Complete the following course:
SLPA $5107 \quad$ Clinical Procedures

## Psychology Elective

Complete one course in the psychology department.

## SEMESTER 9

## Communication Skills for the Health Professions

Complete the following course:
PHTH $2300 \quad$ Communication Skills $\quad$ for the Health Professions

## Moral Problems in Medicine

Complete one of the following courses:
HSCI $4510 \quad$ Health-Care Ethics
4 SH
PHIL 1165 Moral and Social Problems 4 SH
in Health Care

## Early Intervention

Complete the following course:
HLTH 5105 Introduction to Early Intervention
Seminar in Speech-Language Pathology and Audiology
Complete the following course:
SLPA $4650 \quad$ Seminar in SLP and Audiology
4 SH

## SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY GRADE REQUIREMENT

A grade of C or higher is required in all SLPA courses.
NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
132 total semester hours required
Minimum 2.000 GPA required

## BS/MS in Speech-Language Pathology and Audiology

## SEMESTER 1

## Freshman Seminar

Complete the following course:
HSCI $1000 \quad$ College: An Introduction 1 SH
Anatomy and Physiology 1
Complete the following course with corresponding lab:
BIOL 1117 Integrated Anatomy and Physiology $1 \quad 4$ SH
with BIOL 1118 Lab for BIOL 11171 SH

## Introductory English

Complete the following course with a grade of C or higher:
ENGL 11114 SH

## Calculus

Complete the following course:
MATH $1241 \quad$ Calculus $1 \quad 4$ SH

## Introduction to Speech and Hearing

Complete the following course:
SLPA $1101 \quad$ Introduction to Speech and Hearing 4 SH
SEMESTER 2
Anatomy and Physiology 2
Complete the following course with corresponding lab:
BIOL 1119 Integrated Anatomy and Physiology 24 SH
with BIOL 1120 Lab for BIOL 11191 SH

## Foundations of Psychology

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## Language Development

Complete the following course:
SLPA $1102 \quad 4$ SH

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 3

## Phonetics

Complete the following course:
SLPA $1200 \quad$ Phonetics
4 SH
Introduction to Co-op
Complete the following course:
SLPA $2000 \quad$ Introduction to Co-op
1 SH
Developmental Psychology
Complete the following course:
PSYC 3404 Developmental Psychology
4 SH

## Physics 1

Complete the following course with corresponding lab:
PHYS $1145 \quad$ Physics for Life Sciences 1 SH
with PHYS 1146 Lab for PHYS 11451 SH

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 4

## Advanced Writing in the Disciplines

Complete the following course with a grade of C or higher:
ENGL 3306 Advanced Writing in the Health 4 SH Professions

## Statistics and Software

Complete the following course:
MATH $2280 \quad$ Statistics and Software

## Cognition

Complete the following course:
PSYC 3466 Cognition
4 SH
Clinical Research Directed Study
Complete the following course:
SLPA $4701 \quad$ Clinical Research Directed Study

## Education Elective

Complete one course from the following list or an alternative
education course:
PSYC $2358 \quad$ Behavior Therapies 4 SH
PSYC 3450 Learning and Motivation 4 SH

## SEMESTER 5 (SUMMER)

## Comparative Study of Cultures

Complete the following course (which satisfies the NU Core comparative study of cultures requirement):
ANTH $1101 \quad$ Peoples and Cultures
4 SH
or complete any course that satisfies the NU Core comparative study of cultures requirement.

## General Elective

Complete one course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 6

## Health-Care Research

Complete the following course:
HLTH 5450 Health-Care Research
4 SH
Speech and Hearing Science
Complete the following course:
SLPA $1205 \quad$ Speech and Hearing Science 4 SH
Introduction to Audiology
Complete the following course:
SLPA 1203 Introduction to Audiology 4 SH
Anatomy and Physiology of the Vocal Mechanism
Complete the following course:
SLPA 1103 Anatomy and Physiology of the Vocal 4 SH
Mechanism

## SEMESTER 7 (SUMMER)

## General Electives

Complete two courses outside speech-language pathology and audiology. Courses toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 8

## Articulation/Phonology

Complete the following course:
SLPA 6305 Articulation and Phonology 3 SH

## Neurology of Communication

Complete the following course:
SLPA $5109 \quad$ Neurology of Communication 3 SH
Speech-Language Disorders in Children
Complete the following course:
SLPA 6306 Speech-Language Disorders in 3 SH
Children

## Clinical Procedures

Complete the following course:
SLPA 5107 Clinical Procedures
3 SH

## SEMESTER 9

Speech-Language Disorders in Adults
Complete the following course:
SLPA $6309 \quad$ Speech-Language Disorders in Adults 3 SH

## Research and Evidence-Based Practice

Complete the following course:
SLPA $6211 \quad$ Research and Evidence-Based Practice 3 SH
Speech Science
Complete the following course:
SLPA $6301 \quad$ Speech Science 3 SH

## SLP Seminar

Complete the following course:
SLPA $6414 \quad$ Speech-Language Pathology Clinic 1 SH

## SLP Clinic 1

Complete the following course:

## SLPA 6415 Speech-Language Pathology Advanced Clinical Practicum 1

## SEMESTER 10 (SUMMER)

SLP Clinic 2
Complete the following course:
SLPA 6416 Speech-Language Pathology
Advanced Clinical Practicum 2

## Undergraduate General Elective

Complete one undergraduate course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 11

Dysphagia
Complete the following course:
SLPA 6308 Dysphagia

## Voice Disorders

Complete the following course:
SLPA 6307 Voice Disorders 3 SH
SLP Clinic 3
Complete the following course:
SLPA 6417 Speech-Language Pathology
Advanced Clinical Practicum 3

## Aural Rehabilitation

Complete the following course:
SLPA 6219 Aural Rehabilitation
3 SH

## Graduate General Elective

Complete one graduate course outside speech-language pathology and audiology. A course toward an approved minor may be selected to satisfy this requirement.

## SEMESTER 12

## Stuttering

Complete the following course:
SLPA 6303 Stuttering
Augmentative and Alternative Communication
Complete the following course:
SLPA 6304
Augmentative and Alternative
Communication
SLP Clinic 4
Complete the following course:
SLPA $6418 \quad \begin{gathered}\text { Speech-Language Pathology } \\ \text { Advanced Clinical Practicum } 4\end{gathered}$

## Motor Speech Disorders

Complete the following course:
SLPA $6321 \quad$ Motor Speech Disorders

## Language Literacy

Complete the following course:
SLPA 6322 Language Literacy

## SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY GRADE REQUIREMENT

A grade of C or higher is required in all SLPA courses.
NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
163 total semester hours required
Minimum 2.000 GPA required

## Minor in Early Intervention

Restricted to students in the BS degree program in speechlanguage pathology and audiology.

## REQUIRED COURSES

Complete the following six courses:

| CAEP 5150 | Early Intervention: Family Systems | 3 SH |
| :---: | :---: | :---: |
| CAEP 5151 | Early Intervention: Infant and Toddler Development, Risk, and Disability | 3 SH |
| CAEP 5152 | Early Intervention: Planning and Evaluating Services | 3 SH |
| CAEP 8425 | Early Intervention Practicum 1 | 2 SH |
| CAEP 8426 | Early Intervention Practicum 2 | 2 SH |
| SLPA 5150 | Early Intervention: Assessment and | 3 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## SCHOOL OF NURSING

www.bouve.neu.edu/nursing

Susan J. Roberts, DNSc, RN, ANP, FAAN
Associate Professor and Interim Dean
Carol A. Glod, PhD, RN, CS, FAAN
Professor and Research Director
Patricia A. Kiladis, MS, RN
Director of Academic Affairs

Office of the Dean: 102 Robinson Hall
Phone: 617.373.3649
Fax: 617.373.8675

TThe School of Nursing offers a Bachelor of Science in nursing program designed to prepare students to become professional nurses for practice in a variety of health-care settings such as hospitals, community health centers, schools, and homes. The school aims to provide all students-including those with diverse
backgrounds and changing career goals-with a broad-based education that will foster ongoing personal and professional growth.

Successful completion of the baccalaureate program allows graduates to take the National Council Licensing Examination (NCLEX-RN) to become registered nurses (see also "Special Requirements," below) and also seeks to provide the educational background needed for graduate study in nursing specialties.

Nursing is both a science-based process and a caring art. The curriculum offers instruction in the sciences with opportunities in the humanities. Since nursing practice focuses on promoting, preserving, and restoring the health and well-being of individuals, families, groups, and communities across the life span, the curriculum emphasizes a community-based, primary-care approach, which builds throughout the program. This approach requires knowledge, skills, and attitudes related to health care that are comprehensive, culturally sensitive, continuous, effective, compassionate, and collaborative. Because the vast majority of people's lives are spent in the community, a significant part of the clinical program takes place in the community where people live, work, rest, play, vote, and pray. Recognizing the equally important need to prepare nurses to care for ill patients in institutions, the program provides ample opportunities for nursing practice in hospitals, rehabilitation centers, and long-term-care facilities. The curriculum is capped by courses that enable students to put leadership and management skills into action and to synthesize the complete role of the professional nurse in a clinical practicum.

In addition to completing academic course work, students must meet the cooperative education requirement, which gives them the opportunity to integrate the theory and practice of nursing in selected settings. Through numerous community and institutional health-care agencies in Greater Boston and across the country, students gain experience in providing nursing care to a variety of patients and families. Students learn that nurses have major roles in wellness and health promotion, acute care, and long-term care.

The program is accredited by the Commission on Collegiate Nursing Education and is approved by the Board of Registration in Nursing of the Commonwealth of Massachusetts (BORN). Accreditation and approval indicate that the program meets educational standards for faculty, curriculum design, student quality, and overall University support. The school subscribes to the standards established by the American Association of Colleges of Nursing, of which it is a member.

## Special Requirements

All students must receive a health clearance from University Health and Counseling Services (UHCS). This is based on documentation of evidence of immunity from infectious disease and a physical examination (this may be done by the student's own health care provider). In addition, nursing students need a clinical clearance in order to participate in clinical courses. Clinical clearance includes verification of UHCS health clearance and also documentation of current certification in
cardiopulmonary resuscitation (CPR), recent tuberculosis screening (PPD), and additional health screenings as may be required by the program. It is the responsibility of the student to stay current and to provide documentation required for clinical clearance throughout the entire nursing program.

Most clinical settings also require additional information from the student, such as a Criminal Offender Record Information (CORI) release; the school will inform the student in those instances.

Students enrolled in the clinical courses may need access to a car to travel to assigned agencies. Students are responsible for their own transportation costs.

During academic semesters, students in the School of Nursing are required to wear the approved school uniform in some clinical laboratory areas.

In Massachusetts and several other states, the registering board requires that graduates sitting for the NCLEX-RN licensure examination meet standards of "good moral character." Students may review Licensure Policy No. 99-03 under "Rules \& Regulations" on the Massachusetts BORN Web site at www.mass.gov/dpl/boards/rn/index.htm or investigate the requirements in the state where they expect to practice.

## Upper-Division Transfer Track

The School of Nursing undergraduate program welcomes both transfer students and students planning a career change who have a degree in another field. Recommended entering requirements include one semester of biology, two semesters of anatomy and physiology (with lab), one chemistry course (with lab), and college algebra. Overall GPA should be a minimum of 3.000 for consideration into the program. A microbiology course (with lab) is strongly recommended. Students are accepted into this track for the fall semester only. Once accepted, the transfer student follows a fixed curriculum plan that includes cooperative education experiences. Students may complete their baccalaureate program requirements in approximately six semesters, including co-op.

## RN to BSN Option

The school accepts registered nurses who wish to complete requirements for a Bachelor of Science in nursing degree into the University's College of Professional Studies. The part-time curriculum program varies, depending on the individual's previous educational experience and ability to achieve advancement through the development of a portfolio to validate prior learning. More information is available at www.northeastern.edu/cps/rnbs_nursing.

## BSN-Bachelor of Science in Nursing

## SEMESTER 1

Introduction to College
Complete the following course:
NRSG $1000 \quad$ College: An Introduction
1 SH

## Nutrition

Complete the following course:

| HSCI 1105 | Nutrition | 4 SH |
| :--- | :--- | :--- |
| Mathematics  <br> Complete one of the following courses:  <br> MATH 1120 Precalculus <br> MATH 1215 Mathematical Thinking | 4 SH |  |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 <br> MATH 1251 | Calculus and Differential Equations <br> for Biology 1 |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1341 | Calculus 1 for Science and <br> Engineering | 4 SH |
|  | SH |  |

## Biology 1

Complete the following course with corresponding lab:
BIOL 1111 General Biology 1
4 SH
with BIOL 1112 Lab for BIOL 1111

## Introductory English

Complete the following course with a grade of C or higher:
ENGL 1111 College Writing

## SEMESTER 2

Microbiology
Complete the following course with corresponding lab:
BIOL $1121 \quad 4$ SH
with BIOL 1122 Lab for BIOL 1121

## Sociology

Complete the following course:
SOCL 1101 Introduction to Sociology
Anatomy and Physiology 1
Complete the following course with corresponding lab:
BIOL 1117 Integrated Anatomy and Physiology 14 SH
with BIOL 1118 Lab for BIOL 11171 SH

## Psychology

Complete the following course:
PSYC 1101 Foundations of Psychology

## SEMESTER 3

Health and Illness-Nursing Perspective
Complete the following course (which satisfies the NU Core comparative study of cultures requirement):
NRSG 2210 Influences on Health and Illness: A 3 SH Nursing Perspective

## Chemistry

Complete the following course with corresponding lab:
CHEM 1101 General Chemistry for Health Sciences
with CHEM 1102 Lab for CHEM 1101
1 SH

## Ethics

Complete one of the following courses:

| HSCI 4510 | Health-Care Ethics | 4 SH |
| :--- | :--- | :--- |
| or PHIL 1165 | Moral and Social Problems in Health <br>  <br>  <br> Care | 4 SH |

## Anatomy and Physiology 2

Complete the following course with corresponding lab:
BIOL 1119 Integrated Anatomy and Physiology $2 \quad 4$ SH
with BIOL 1120 Lab for BIOL 11191 SH

## SEMESTER 4

Nursing Intervention/Assessment
Complete the following course with corresponding lab:
NRSG $2220 \quad$ Nursing Interventions, Assessment, 3 SH and Community Care
with NRSG 2221 Lab for NRSG 2220

## Pharmacology

Complete the following course:
PHSC $4340 \quad$ Pharmacology for the Health Professions

## Professional Development

Complete the following course:
NRSG $2000 \quad$ Professional Development for Co-op 1 SH

## Growth and Development

Complete the following course:
PSYC 3404 Developmental Psychology 4 SH

## Pathophysiology

Complete the following course:
NRSG 2312 Pathophysiology 4 SH
SEMESTER 5
Nursing Intervention/Assessment—Intermediate Lab
Complete the following course with corresponding lab:

| NRSG 3323 | Intermediate Interventions and <br> Assessment | 1 SH |
| :--- | :--- | :--- |
| with NRSG 3324 | Lab for NRSG 3323 | 1 SH |

## Nursing Care/Adults 1 with Clinical

| Complete the following course with corresponding clinical: |  |  |
| :--- | :--- | :--- |
| NRSG 3320 | Nursing Care of Adults 1 | 4 SH |
| with NRSG 3321 | Clinical for NRSG 3320 | 2 SH |

## Women and Families with Clinical

Complete the following course with corresponding clinical:
NRSG $3302 \quad$ Nursing with Women and Families 3 SH
with NRSG 3303 Clinical for NRSG 3302 SH

## Statistics

Complete the following course:
MATH $1180 \quad$ Statistical Thinking 4 SH
SEMESTER 6

## Mental Health with Clinical

Complete the following course with corresponding clinical:

| NRSG 3400 | Nursing and the Promotion of Mental <br> Health | 3 SH |
| :--- | :--- | :--- |
| with NRSG 3401 | Clinical for NRSG 3400 | 2 SH |

## Research

Complete the following course:
HLTH 3450 Health-Care Research
4 SH

## SEMESTER 7

## Acutely III Child with Clinical

Complete the following course with corresponding clinical:
NRSG $4500 \quad$ Nursing with Acutely Ill Children and Families
with NRSG 4501 Clinical for NRSG 4500

## Nursing Care in the Community with Clinical

Complete the following course with corresponding clinical:
NRSG $4340 \quad$ Nursing Care in the Community 3 SH
with NRSG 4341 Clinical for NRSG $4340 \quad 2$ SH

## Advanced Writing in the Disciplines

Complete the following course with a grade of C or higher:
ENGL $3306 \quad$ Advanced Writing in the Health Professions

## SEMESTER 8

Comprehensive Nursing Practicum
Complete the following course:
NRSG 4995 Comprehensive Nursing Practicum
Vulnerable Populations with Clinical
Complete the following course with corresponding clinical:
NRSG $4600 \quad$ Nursing with Vulnerable Populations 3 SH
with NRSG 4601 Clinical for NRSG 46002 SH

## Managing and Leading

Complete the following course:
NRSG $4610 \quad$ Managing and Leading in Health Care 3 SH

## Free Elective

Complete any course outside nursing or one of the following courses:
NRSG 1205 Wellness 4 SH
NRSG 4970 Junior/Senior Honors Project 1 SH
NRSG 4971 Junior/Senior Honors Project 24 SH
NRSG 4992 Directed Study 3 or 4 SH

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## SCHOOL OF PHARMACY

www.bouve.neu.edu/pharmacy
John R. Reynolds, PharmD
Professor and Dean
Mansoor M. Amij, PhD
Professor and Acting Chair, Department of Pharmaceutical Sciences
David P. Zgrarick, PhD
Professor and Chair,
Department of Pharmacy Practice
Samuel J. Matthews, Pharmd
Assistant Dean for Academic Affairs

Office: 206 Mugar Life Sciences Building
Phone: 617.373.3380
Fax: 617.373.7655
E-mail contact: Karen Stanley, Administrative Coordinator, k.stanley@neu.edu
$\mathrm{P}_{\text {harmacists promote the safe and effective use of drugs by }}$ providing medication therapy management services. In addition to preparing and dispensing medications prescribed by physicians, pharmacists provide information to patients about medications and their uses; advise physicians and other health-care practitioners on medication selection, dosages, interactions, and adverse effects; and monitor patient responses to drug therapy.

Pharmacists are educated and trained to provide patient care services in a variety of settings. Traditionally, most pharmacists work in community settings, such as retail pharmacy, or in healthcare facilities, such as hospitals. Community pharmacists dispense medications, counsel patients, and answer questions about prescribed therapies. They also provide information and make recommendations about over-the-counter medications, products, and medical equipment. A community pharmacy offers the setting to combine specialized pharmacy knowledge with application of patient care skills, business administration, and marketing. In addition to patient counseling, community pharmacists spend considerable time discussing health-related matters with prescribers. Pharmacists in health-care facilities such as hospitals prepare and distribute medications and collaborate with medical staff regarding the selection and effective use of medications. They also assess, plan, and monitor medication regimens and counsel patients on use of medications during hospitalization and upon discharge. Some pharmacists specialize in specific areas such as cardiology, infectious diseases, oncology, pediatrics, and psychiatry.

Opportunities are expanding for pharmacists elsewhere. Health maintenance organizations, private practice groups, long-term-care facilities, home health care, the Public Health Service, the armed services, and law enforcement agencies such as the Federal Drug Enforcement Administration all require the professional services of pharmacists. Graduates also find
employment in drug development, marketing and research within the pharmaceutical industry, colleges of pharmacy, and professional association management. Many graduates go on to leading graduate schools, pharmacy practice residencies, and research fellowships for specialized training.

The six-year Doctor of Pharmacy curriculum at Northeastern University offers a unique program that fully integrates campusbased learning with experiential education, including the University's signature cooperative education (Co-op) program.

To be eligible for a pharmacy degree, a student must satisfactorily complete all courses in the curriculum; have an overall 2.000 GPA; meet the introductory (co-op) and advanced pharmacy practice experiences; and satisfy all other requirements as stated in the Bouvé College of Health Sciences Undergraduate Student Information Manual. The undergraduate pharmacy program, which is fully accredited by the Accreditation Council for Pharmacy Education (info@acpe-accredit.org), subscribes to the standards established by ACPE and the American Association of Colleges of Pharmacy.

Pharmacy graduates must meet specific requirements to qualify for professional licensure in the state where they plan to practice as a registered pharmacist. These requirements include graduating from an accredited school of pharmacy, passing national and state board examinations, and completing an internship. The internship is a period of practical experience conducted under the supervision of a registered pharmacist. Massachusetts requires 1,500 internship hours, all of which are satisfied through the introductory (co-op) and advanced pharmacy practice experiences.

## Academic Progression Standards

Students must adhere to the program plan for their year of graduation. Any deviation from the program's curriculum requires permission and an approved plan of study from the School of Pharmacy Academic Affairs Committee. To remain in good academic standing, students must receive grades of C or better in all professional prerequisite courses beginning with the second year of the program. To progress from the second to the third (first professional) year of the pharmacy program, students must have an overall grade point average (GPA) of at least 2.700; have satisfactorily completed all courses in years one and two of the curriculum; and have successfully completed evaluations to assess verbal and written communication skills, understanding of the pharmacy profession, and commitment to patient care. To progress into any subsequent year of the program, students must have passed all professional courses with a grade of C or better.

## PharmD—Doctor of Pharmacy

## PHARMACY MAJOR GRADE REQUIREMENT

A grade of C or higher is required in all PHMD and PHSC courses. A GPA of 2.700 is necessary to progress from second to third year. See "Academic Requirements" on page 205 and "Academic Progression Standards" on page 220 for additional grade and progression requirements.

## SEMESTER 1 (FALL)

## Freshman Seminar

Complete the following course:
PHMD $1000 \quad$ College: An Introduction

## Biology 1

Complete the following course with corresponding lab:
BIOL 1111 General Biology 1
with BIOL 1112 Lab for BIOL 1111

## Chemistry 1

Complete the following course with corresponding lab:
CHEM $1211 \quad$ General Chemistry 14 SH
with CHEM 1212 Lab for CHEM 12111 SH

## Introductory English

Complete the following course with a grade of C or higher:
ENGL 1111 College Writing

## Psychology

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## SEMESTER 2 (SPRING)

## Biology 2

Complete the following course with corresponding lab:
BIOL $1113 \quad$ General Biology 2 SH
with BIOL 1114 Lab for BIOL 11131 SH

## Chemistry 2

Complete the following course with corresponding lab:
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH

## Calculus

Complete the following course:
MATH $1241 \quad$ Calculus 1
4 SH

## Profession of Pharmacy

Complete the following course:
PHMD 1001 Introduction to the Profession
of Pharmacy

## Arts/Humanities Level 1

Complete one course to satisfy the NU Core arts/humanities level 1 requirement as described on page 26 .

## SEMESTER 3 (FALL)

## Physics

Complete the following course with corresponding lab:
PHYS $1149 \quad$ Physics for Pharmacy 4 SH

PHYS 1150 Lab for PHYS 11491 SH

## Organic Chemistry 1

Complete the following course with corresponding lab:
CHEM $2311 \quad$ Organic Chemistry 1 SH
with CHEM 2312 Lab for CHEM 2311
Human Physiology 1 and Human Anatomy Laboratory
Complete the following course with corresponding lab:
PHSC $2301 \quad 3$ SH
with PHSC 2302 Human Anatomy Lab 1 SH

## Comparative Study of Cultures

Complete one course to satisfy the NU Core comparative study of cultures requirement as described on page 26.

## SEMESTER 4 (SPRING)

Co-op Seminar/Pharmacy Practice
Complete the following course:
PHMD 1201 Introduction to Pharmacy Practice 1 SH

## Organic Chemistry 2

Complete the following course with corresponding lab:
CHEM 2313 Organic Chemistry 2 SH
with CHEM 2314 Lab for CHEM 23131 SH
Human Physiology 2 and Human Physiology Laboratory
Complete the following course with corresponding lab:
PHSC $2303 \quad 3$ SH
with PHSC 2304 Human Physiology Lab 1 SH

## Medical Microbiology

Complete the following course:
PHSC $2360 \quad 3$ SH
Free Elective
Complete one course outside pharmacy.

## PROGRESSION REQUIREMENTS FOR THIRD YEAR

1. A 2.700 GPA is required at the end of the second year to progress to the third year.
2. The student must demonstrate good written and verbal communication skills.
3. The student must demonstrate an understanding of the pharmacy profession.
4. The student must demonstrate a commitment to patient care.

## SEMESTER 5 (FALL)

## Biochemistry

Complete the following course:
PHSC $2320 \quad$ Biochemistry
4 SH
Pharmacology/Medicinal Chemistry 1
Complete the following course:
PHSC $4501 \quad$ Pharmacology/Medicinal Chemistry $1 \quad 5$ SH

## Writing for the Health Professions

Complete the following course with a grade of C or higher:
ENGL 3306 Advanced Writing in the Health 4 SH Professions

## Pharmaceutics 1

Complete the following course:
PHSC $3411 \quad$ Pharmaceutics 1

## SEMESTER 6 (SUMMER)

Health-Care Systems
Complete the following course:
PHMD 2350 Health-Care Systems
3 SH

## Communication Skills for Pharmacists

Complete the following course with corresponding lab:
PHMD 2310 Communication Skills for Pharmacists 3 SH
with PHMD 2311 Lab for PHMD 23101 SH
Pharmacology/Medicinal Chemistry 2
Complete the following course:
PHSC 4502 Pharmacology/Medicinal Chemistry 25 SH

## Pharmaceutics Laboratory

Complete the following course:
PHSC $3419 \quad$ Pharmaceutics Laboratory 1 SH
Pharmaceutics 2
Complete the following course:
PHSC $3412 \quad$ Pharmaceutics 24 SH
SEMESTER 7 (SPRING)
Pharmacokinetics and Biopharmaceutics
Complete the following course:
PHSC $3430 \quad$ Pharmacokinetics and 3 SH

## Immunology

Complete the following course:
PHSC 2330 Immunology 3 SH

## Comprehensive Disease Management 1 and 2

Complete the following two courses with corresponding seminar:

| PHMD 4586 | Comprehensive Disease <br> Management 1 | 4 SH |
| :--- | :--- | :---: |
| PHMD 4587 | Comprehensive Disease <br> Management 2 | 4 SH |
| with PHMD 4588 | Comprehensive Disease <br> Management Seminar 1/2 | 1 SH |
|  |  |  |

## Research Methodology and Biostatistics

Complete the following course:
PHMD 3450 Research Methodology and Biostatistics

## SEMESTER 8 (SUMMER)

Therapeutic Drug Monitoring
Complete the following course:
PHMD 6216 Therapeutic Drug Monitoring 2 SH

## Toxicology

Complete the following course:
TOXC $5570 \quad$ Clinical Toxicology 2 SH
Pharmacy Care Management
Complete the following course:
PHMD $6250 \quad$ Pharmacy Care Management 3 SH

## Comprehensive Disease Management 3

| Complete the following course with corresponding seminar: |  |
| :--- | :--- |
| PHMD $6233 \quad$Comprehensive Disease <br> Management 3 | 4 SH |
| with PHMD 6234 Comprehensive Disease <br> Management Seminar 3 <br> Drug Information <br> Complete the following course: <br> PHMD $6223 \quad$ Drug Information and Evaluation 3 SH |  |

## Free Elective

Complete one course outside pharmacy.
SEMESTER 9 (FALL)
Comprehensive Disease Management 4 and 5
Complete the following two courses with corresponding seminar: PHMD 6254 Comprehensive Disease 4 SH Management 4
PHMD 6255 Comprehensive Disease 4 SH
Management 5
with PHMD 6256 Comprehensive Disease 1 SH
Management Seminar 4/5

## Jurisprudence

Complete the following course:
PHMD 6330 Jurisprudence
Pharmaceutical Care Practice 1 and Lab
Complete the following course with corresponding lab:
PHMD 6365 Pharmaceutical Care Practice 1
1.5 SH
with PHMD 6366 Lab for PHMD 6365

## Free Elective

Complete any one elective.

## SEMESTER 10 (SPRING)

Comprehensive Disease Management 6 and 7
Complete the following two courses with corresponding seminar:

| PHMD 6266 | Comprehensive Disease <br> Management 6 | 4 SH |
| :--- | :--- | :--- |
| PHMD 6267 | Comprehensive Disease <br> Management 7 | 4 SH |
| with PHMD 6268 | Comprehensive Disease <br> Management Seminar 6/7 | 1 SH |

## Pharmacoeconomics

Complete the following course:
PHMD $6270 \quad$ Pharmacoeconomics 4 SH

## Pharmaceutical Care Practice 2 and Lab

Complete the following course with corresponding lab:
PHMD $6375 \quad$ Pharmaceutical Care Practice $2 \quad 1.5 \mathrm{SH}$
with PHMD 6376 Lab for PHMD 63750.5 SH

## Free Elective

Complete any one elective.

## YEAR 6 (SUMMER, FALL, SPRING)

## Advanced Practice Experience

Select courses from the following list to complete six 6-week rotations for a total of 36 semester hours:
PHMD 6440 to PHMD 6468

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

210 total semester hours required
Minimum 2.000 GPA required

## TOXICOLOGY

Robert A. Schatz, PhD
Associate Professor and Director

Office: 314 Mugar Life Sciences Building
Phone: 617.373.3214
Fax: 617.373.8886
E-mail contact: Robert A. Schatz, Associate Professor and Director, r.schatz@neu.edu

Toxicology-the study of injurious effects of chemicals on living organisms-has become increasingly important against a background of bioterrorism, rapid advances in DNA research, and a constant stream of new industrial chemicals in our environment. Toxicologists are responsible for determining hazards from exposure to chemicals, setting limits of safety, identifying and measuring toxic chemicals by analysis, recommending safe use of chemicals, and determining clinical hazards and treatment of drug overdoses and chemical exposure.

Toxicology is a very diverse field, touching on drug research, pharmacology, chemical analysis, forensics, and environmental pollution, among other disciplines.

A minor in toxicology is available to students interested in environmental issues and in gaining insight into experimental approaches to evaluate drug and chemical toxicity.

## Minor in Toxicology

## REQUIRED COURSES

Complete the following three courses:

| TOXC 5574 | Organ Systems Toxicology | 3 SH |
| :--- | :--- | :--- |
| TOXC 5576 | Experimental Toxicology | 3 SH |
| TOXC 5578 | Biochemical Toxicology Lab | 3 SH |

## ELECTIVE COURSE OPTIONS

Complete one elective based on your area of interest:
MLBS $1299 \quad$ Foundations of Forensic Lab Science 3 SH
TOXC $5570 \quad$ Clinical Toxicology 2 SH
TOXC 5572 Environmental Toxicology 3 SH
GPA REQUIREMENT
2.000 GPA required in the minor

Thomas E. Moore, PhD, Dean

William F. Crittenden, PhD, Senior Associate Dean and Dean of Faculty
Peggy L. Fletcher, MBA, Associate Dean for Undergraduate Programs
Kate E. Klepper, MBA, Associate Dean for Graduate Programs

Undergraduate Office: 250 Dodge Hall
Phone: 617.373.3270
Fax: 617.373.4804
E-mail contact: Brad Czarnowski, Administrative Assistant, b.czarnowski@neu.edu

## Programs in the College of Business Administration are

 designed for students who are preparing to take on managerial responsibility. These programs help students develop the ability to recognize and solve business and organizational problems and understand the role of business in the community, the nation, and the world.The college's goal is to help students develop ideals that are ethically sound and socially desirable; cultivate an awareness of the social, political, and economic developments to which businesses must adapt; develop sound judgment and effective communication skills; and develop their individual interests and talents.

Modern business faces many challenges from unprecedented political change and the effects of foreign policy, high technology, affirmative action regulations, and new economic policies. These challenges have increased the demand for highly trained individuals equipped to analyze and address our economy's complex social and legal problems.

The college offers Bachelor of Science degrees in international business and in business administration with concentrations in accounting, entrepreneurship and innovation, finance and insurance, management, supply chain management, management information systems, and marketing. The business curriculum is enhanced by courses in the sciences, humanities, and social sciences. In addition to their academic courses, all students are required to complete a cooperative education plan.

Co-op provides a learning experience beyond the classroom. Textbook examples come to life in real-world business settings. Classroom theories are applied to actual business problems. In turn, these experiences serve to stimulate inquiry and discussion back in the classroom. This interaction between college studies and cooperative education sets the stage for a lifetime of learning.
www.cba.neu.edu

The undergraduate program of the College of Business Administration meets the standards of the American Assembly of Collegiate Schools of Business for faculty and student quality, curriculum design, and overall University support.

After graduation, students may obtain jobs in all aspects of business, both domestically and internationally.

## Academic Progression Standards

Listed below are the GPA values required for students to advance to the next class standing and to graduate.

|  | Overall GPA | Freshman Core <br> Courses GPA* | Business <br> Courses GPA |
| :--- | :--- | :--- | :--- |
| Sophomore | 2.000 | 2.000 | 2.000 |
| Middler | 2.000 |  | 2.000 |
| Junior | 2.000 |  | 2.000 |
| Senior | 2.000 |  | 2.000 |
| To graduate | 2.000 |  | 2.000 |

* Freshman Core Courses refers to College Writing, Macroeconomics and Microeconomics, Calculus for Business, and Introduction to Business.

Freshmen must complete at least 24 SH in order to progress to sophomore status, although freshmen who earn fewer than 32 SH must make up the difference prior to graduation. Students beyond the freshman year must complete at least 16 SH each in-school (not on co-op) full semester and 8 SH each in-school summer half semester in order to progress to the next class standing.

## Pass/Fail Option

College of Business Administration students may opt to take courses on a pass/fail basis in accordance with University policy but should be aware that this policy applies to nonbusiness courses that will count as open electives only. Business courses may not be taken pass/fail under any circumstance.

## Taking Courses While on Co-op

It is College of Business Administration policy that, with permission of their academic advisor, co-op coordinator, and employer, students may take a maximum of one class while on coop during the fall, spring, or summer term. Students should initiate this process by filling out the appropriate paperwork with their coop coordinator.

## Transferring to the College of Business Administration

Students may transfer to the College of Business Administration externally (from another institution) or internally (from another school or college at Northeastern University).

## EXTERNAL TRANSFER

External transfer students are accepted from other academic institutions during the fall and spring terms. Applications and accompanying materials are submitted directly to the Admissions Office.

The College of Business Administration at Northeastern University is accredited by the Association for the Advancement of Collegiate Schools of Business (AACSB) and as such complies with the following regulations governing the transferring of credit:

## Courses from an AACSB-accredited institution:

Students may transfer a maximum of 80 semester hours (SH) of credit. A combination of 60 SH of nonbusiness courses and/or 28 SH of business courses will be accepted.

## Courses from a non-AACSB-accredited institution:

Students may transfer a maximum of 60 SH of credit. A combination of 52 SH of nonbusiness courses and/or 20 SH of business courses will be accepted.

Some courses are not eligible for transfer. Please check with an academic advisor in the College of Business Administration for more details.

## INTERNAL TRANSFER

Students may internally transfer into the College of Business Administration through the Internal Transfer Program, the General Studies Program, or the Ujima Scholars Program. Students wishing to internally transfer into the College of Business Administration should follow the entrance criteria laid out by their respective program. Students should be aware that certain courses are not applicable to College of Business Administration curriculum and will not count toward degree requirements. Examples of such courses include ECON 1101, mathematics below precalculus level, and study skill courses. Students who take these courses prior to matriculating into the College of Business Administration will need to take additional courses to meet graduation requirements.

## Graduation Requirements

Bachelor of Science degree candidates must complete all prescribed work of the curriculum in which they seek to qualify, currently 128 semester hours. The degree not only represents the formal completion of selected courses, but also indicates professional study in the major or concentration. A GPA of C (2.000) and a C average in all business courses are required for graduation. Students must be enrolled in a full program of studies in the College of Business Administration during the final three semesters preceding graduation.

## MINOR

Courses for the minor are offered for nonbusiness students. This minor is attractive to students if they are considering a career in business or pursuing an MBA. The minor consists of five courses. These include Financial Accounting, Introduction to Marketing, Financial Management, Human Resource Management, and one elective. Students who wish to enter the program should sign up in the Undergraduate Business Programs Office. Students who complete all five courses successfully and have earned at least a C (2.000) average in them will be awarded a minor in business administration at graduation.

## Minor in Business Administration

## ACCOUNTING

Complete the following course:

| ACCT 1209 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| or ACCT 1201 | Financial Accounting and Reporting | 4 SH |

## FINANCE

Complete the following course:
FINA $2209 \quad 4$ SH
or FINA 2201 Financial Management 4 SH

## MARKETING

Complete the following course:

| MKTG 2209 | Introduction to Marketing | 4 SH |
| :--- | :--- | :--- |
| or MKTG 2201 | Introduction to Marketing | 4 SH |

## ORGANIZATIONAL BEHAVIOR

Complete the following course:
ORGB $3209 \quad$ Organizational Behavior 4 SH
or ORGB 3201 Organizational Behavior 4 SH

## BUSINESS ELECTIVE

Complete one course from the following list or any business course for which the prerequisites have been met:
ENTR 1204 Innovation! 4 SH

ENTR 2201 The Entrepreneurial Universe 4 SH
INTB $1209 \quad$ Global Environment of International 4 SH
or INTB 1203 International Business and Global 4 SH

MGSC $3409 \quad$ Operations Management 4 SH
MISM $2309 \quad$ Management Information Systems 4 SH
or MISM 2301 Management Information Systems 4 SH

## GPA REQUIREMENT

2.000 GPA required in the minor

## ACCOUNTING

www.cba.neu.edu/undergrad

Office: 404 Hayden Hall
Phone: 617.373.3240
Fax: 617.373.8814
E-mail contact: Peggy O’Kelly, Senior Lecturer and Concentration Coordinator, p.okelly@neu.edu

Aconcentration in accounting aims to prepare the graduate for entry into public or private firms and is one of the most critical areas of management. Accounting is an exciting field that requires people with sound technical knowledge, critical thinking skills, superior interpersonal skills, and the ability to communicate effectively. Accountants hold senior management positions in private companies in business or industry, public accounting firms, and government agencies.

To prepare for an accounting career, students take courses in financial reporting and managerial accounting, with additional elective courses available for more specialized studies in strategic cost analysis, auditing and other assurance services, income tax planning, and accounting information systems.

## BSBA-Bachelor of Science in Business Administration with Concentration in Accounting BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and |
| MATH 1342 | Engineering <br> Calculus 2 for Science and <br> Engineering | 4 SH |
|  | SH |  |

## Statistics

Complete the following course:
MGSC 1201 Business Statistics
Macro- and Microeconomics
Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |
| Finance |  |  |

## Finance

Complete the following course:
FINA $2201 \quad 4$ SH

## International Business/Social Responsibility

Complete the following course:
INTB 1203 International Business and Global 4 SH

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 4 SH
Organizational Behavior
Complete the following course:
ORGB $3201 \quad$ Organizational Behavior 4 SH
Strategy in Action
Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH

## CONCENTRATION IN ACCOUNTING

## Accounting Required Courses

Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

## Accounting Elective Courses

Complete two courses from the following list:
ACCT 3403 Accounting Information Systems 4 SH
ACCT $3416 \quad$ Strategic Cost Analysis for Decision 4 SH

ACCT $4412 \quad$ Auditing and Other Assurance 4 SH
Services
Income Tax Determination and 4 SH
Planning

## ELECTIVES/SECOND BUSINESS CONCENTRATION

Complete eight elective courses. Four electives can be used
toward completion of an additional business concentration as outlined below:
Concentration in Entrepreneurship and Innovation
Complete the following four courses:
ENTR 2201 The Entrepreneurial Universe 4 SH
ENTR $3301 \quad$ Opportunity Assessment and 4 SH

| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |
| :--- | :--- | :--- |
| ENTR 4501 | Venture Creation and Entrepreneurial <br> Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail <br> Creation | 4 SH |
| Concentration in Finance |  |  |
| FINANCE REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| FINA 3301 | Corporate Finance <br> FINA 3303$\quad$ Investments |  |

## FINANCE ELECTIVE COURSES

Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT 3303 Building Your Management Skills

## MANAGEMENT ELECTIVE COURSES

Complete three additional MGMT courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |

MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:

| ACCT 3403 | Accounting Information Systems | 4 SH |
| :--- | :--- | :--- |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 4 SH |

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH

MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain <br>  <br>  <br>  <br> Management | 4 SH |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

ENTREPRENEURSHIP AND INNOVATION
www.cba.neu.edu/undergrad

Office: 319 Hayden Hall
Phone: 617.373.2182
Fax: 617.373.8628
E-mail contact: Kimberly Ann Eddleston, Assistant Professor and Concentration Coordinator, k.eddleston@neu.edu

Bygreat incentive to enhance personal wealth, today's entrepreneur is an important engine for growth and job creation in our economy.
Entrepreneurs come in many varieties: from those who start oneperson firms to those who start growth ventures that will go public and become large companies. Rather than starting their own businesses, some of our students assume responsibility for family businesses and expand them through new strategies and financing. Still other students are hired by large corporations that are trying to learn entrepreneurial thinking to create new business units and renew traditional product lines.

The entrepreneurship and innovation concentration guides students through the process of developing new business concepts, writing business plans for those concepts, and seeking venture financing. We expose students to a wide range of entrepreneurs and investors. We also demonstrate how a small, growing business should be managed, which will help some of our students better manage and expand their existing family-owned businesses. The most entrepreneurial of seniors may compete in a special undergraduate track for start-up financing in Northeastern's Business Plan Competition.

## BSBA-Bachelor of Science in Business <br> Administration with Concentration in Entrepreneurship and Innovation <br> BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341Calculus 1 for Science and <br> Engineering | 6 SH |
| MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
|  | SH |  |

## Statistics

Complete the following course:
MGSC 1201 Business Statistics

## Macro- and Microeconomics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |

## Finance

Complete the following course:
FINA 2201 Financial Management
International Business/Social Responsibility
Complete the following course:
INTB 1203 International Business and Global Social Responsibility

## Management Information Systems

Complete the following course:
MISM $2301 \quad$ Management Information Systems

## Marketing

Complete the following course:
MKTG 2201 Introduction to Marketing
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management

## Organizational Behavior

Complete the following course:
ORGB 3201 Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH

## CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION

Complete the following four courses:

| ENTR 2201 | The Entrepreneurial Universe |  |
| :--- | :--- | :--- |
| ENTR 3301 | Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial <br> Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail <br> Creation | 4 SH |

## ELECTIVES/SECOND BUSINESS CONCENTRATION

Complete eight elective courses. Four electives can be used toward completion of an additional business concentration as outlined below:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis $1 \quad 4$ SH
ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 <br> ACrategic Cost Analysis for Decision <br> Making | 4 SH |
| :--- | :--- | :--- |
| ACCT 4414 | Auditing and Other Assurance <br> Services | 4 SH |
| Ancome Tax Determination and | 4 SH |  |
| Planning |  |  |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad$ Corporate Finance 4 SH
FINA 3303 Investments 4 SH

## FINANCE ELECTIVE COURSES

Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.

## Concentration in Management Information Systems

## MANAGEMENT INFORMATION SYSTEMS REQUIRED

 COURSESComplete the following three courses:
MISM $3403 \quad$ Data Management and Information
Analysis

MISM $3404 \quad$ Business Data Communications 4 SH
MISM $4501 \quad$ Business Systems Integration 4 SH

## MANAGEMENT INFORMATION SYSTEMS ELECTIVE

 COURSEComplete one additional MISM course or one course from the following list:

| ACCT 3403 | Accounting Information Systems | 4 SH |
| :--- | :--- | :--- |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 4 SH |

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:

| MKTG 3301 | Marketing Management | 4 SH |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 SH |
| MARKETING ELECTIVE COURSES |  |  |
| Complete two additional MKTG courses. |  |  |

## Concentration in Supply Chain Management

Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain <br>  <br> $\quad 4$ SH |  |
|  |  |  |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required
www.cba.neu.edu/undergrad

Office: 413 Hayden Hall
Phone: 617.373.3616
Fax: 617.373.8798
E-mail contact: Elmira Budo, Administrative Secretary, e.budo@neu.edu

The role of people trained in finance and insurance is expanding rapidly within the business world. Changes on the financial scene-rising securities prices, fluctuating inflation and interest rates, and globalization of markets-have created an awareness that financial knowledge is essential to the effective management of business firms.

Finance is the management and investment of money and other assets for businesses, financial institutions, nonprofit organizations, governments, and individuals. The program draws on accounting principles, economic theory, and quantitative methods to direct the way money is managed, acquired, and distributed. Students are exposed to economic and financial systems and how they operate. They also are given an opportunity to analyze economic trends and indicators and how to apply this analysis to financial decision making.

Students may specialize in one or more of the following areas: corporate finance, investment management and analysis, management of financial institutions, insurance and risk management, and real estate. The program is designed to prepare students for careers in corporate financial management, security analysis, investment management, security or insurance brokerage, underwriting, credit management, and risk management with corporations, banks, insurance companies, and other financial institutions.

## BSBA-Bachelor of Science in Business Administration with Concentration in Finance <br> BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH

MATH 1241 Calculus 14 SH
MATH $1242 \quad$ Calculus 2 SH
MATH $1251 \quad$ Calculus and Differential Equations 4 SH for Biology 1
MATH $1252 \quad$ Calculus and Differential Equations 4 SH
for Biology 2
MATH $1340 \quad$ Intensive Calculus for Engineers 6 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH

MATH $1342 \quad$ Calculus 2 for Science and 4 SH

## Statistics

Complete the following course:

MGSC 1201 Business Statistics
4 SH
Macro- and Microeconomics
Complete the following two courses:
ECON 1115 Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |

## Finance

Complete the following course:
FINA 2201 Financial Management
International Business/Social Responsibility
Complete the following course:
$\begin{array}{ll}\text { INTB } 1203 \quad & \text { International Business and Global } \\ \text { Social Responsibility }\end{array}$

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems

## Marketing

Complete the following course:
MKTG 2201 Introduction to Marketing
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management

## Organizational Behavior

Complete the following course:
ORGB 3201 Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:
STRT 4501 Strategy in Action
CONCENTRATION IN FINANCE

## Finance Required Courses

Complete the following two courses:

| FINA 3301 | Corporate Finance | 4 SH |
| :--- | :--- | :--- |
| FINA 3303 | Investments | 4 SH |

## Finance Elective Courses

Complete two additional FINA courses.

## ELECTIVES/SECOND BUSINESS CONCENTRATION

Complete eight elective courses. Four electives can be used toward completion of an additional business concentration as outlined below:

## Concentration in Accounting

## ACCOUNTING REQUIRED COURSES

Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis $1 \quad 4$ SH
ACCT 4501 Financial Reporting and Analysis 24 SH

## ACCOUNTING ELECTIVE COURSES

Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 | 4 SH <br> Strategic Cost Analysis for Decision <br> Making |
| :---: | :---: | :---: |
| ACCT 4412 | Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |
|  |  |  |

Concentration in Entrepreneurship and Innovation
Complete the following four courses:
ENTR 2201 The Entrepreneurial Universe 4 SH

ENTR $3301 \quad$ Opportunity Assessment and 4 SH Entrepreneurship Marketing
ENTR $3401 \quad$ Small Business Management, 4 SH Operations, and Growth
ENTR $4501 \quad$ Venture Creation and Entrepreneurial 4 SH
Finance
Small Business Service and Retail 4 SH
Creation

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |

MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:
ACCT 3403 Accounting Information Systems 4 SH
MKTG 4508 Electronic Marketing 4 SH
SCHM $2201 \quad$ Supply Chain Management 4 SH

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH
MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.

## Concentration in Supply Chain Management

Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.
NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## INTERNATIONAL BUSINESS AND STRATEGY

www.cba.neu.edu/bsib

Office: 313 Hayden Hall
Phone: 617.373.5759
Fax: 617.373.8628
E-mail contact: Nicholas Athanassiou, Associate Professor and Academic Director, n.athanassiou@neu.edu

Globalization of the world economy, the growth of multinational firms, and international trade have created an increasing demand for managers who are equipped to address the complexities of international business. The College of Business Administration offers the Bachelor of Science in International Business (BSIB) to meet the needs of the highly motivated student who plans a career in international business whether abroad or in the United States. The BSIB requires a student to study and work both in the United States and abroad. This program, the first of its kind in the United States, was initiated in 1994.

All students in the BSIB program must take the degree's required courses in international business administration and must choose a second concentration from other business areas such as finance, marketing, management, supply chain management, human resources management, and management information systems. Further, the student has three BSIB program options. The first leads to proficiency in a foreign language; the second and third focus on international affairs or East Asian studies, respectively:
a. Students who opt for the BSIB with a foreign language emphasis are admitted to a French, Spanish (Spain or Mexico), German, or Italian track. They have to develop
proficiency in their chosen language and study the culture of the country or countries where that language is spoken.
Students are required to study in the language of their choice in a partner university abroad for at least one semester and to complete at least one six-month cooperative education work assignment abroad in order to sharpen their language proficiency, cross-cultural capabilities, and business skills. At the end of their studies, students can earn a minor in their chosen language.
b. Students who opt for the BSIB with an emphasis in international affairs or East Asian studies are required to take courses that lead to a minor in either specialty. They are required to study abroad in a partner university in Ireland or Hong Kong/China. Further, they must complete at least one six-month cooperative education work assignment abroad in order to sharpen their cross-cultural capabilities and business skills. While the international affairs or East Asian studies option has a foreign language requirement, the language of instruction abroad is English.

Students may earn both the BSIB degree from Northeastern University and the degree of our partner university if they choose to extend their study in the partner institution for their senior year as well. Students should contact the BSIB advisors for course schedules.

Note 1: The Bachelor of Science in International Business degree requires two half-summer periods of study: one abroad to improve language skills (Summer 1 semester, second year) and the second on campus to prepare for the one- or two-year study and work requirement abroad (Summer 1 semester, third year). This additional requirement brings the total semester hours to 137 .

Note 2: The BSIB program does not offer a partner university degree for the Hong Kong/China-East Asian studies BSIB option at this time.

## BSIB—Bachelor of Science in International Business with Minor in East Asian Studies

## INTERNATIONAL BUSINESS GENERAL EDUCATION REQUIREMENTS

## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB 3301 Living and Working Abroad 4 SH
Mathematics
Complete one calculus course:
MATH $1231 \quad$ Calculus for Business and Economics 4 SH
MATH 1241 Calculus 14 SH
MATH 1242 Calculus 24 SH
MATH $1251 \quad$ Calculus and Differential Equations 4 SH

MATH $1252 \quad$ Calculus and Differential Equations 4 SH

MATH 1340 Intensive Calculus for Engineers 6 SH

## MATH 1341

MATH 1342

4 SH

4 SH

## Statistics

Complete the following course:

## MGSC 1201 <br> Business Statistics

Macroeconomics and Microeconomics
Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

## Finance

Complete the following course:
FINA 2201 Financial Management

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems

## Marketing

Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management

## Organizational Behavior

Complete the following course:
ORGB 3201 Organizational Behavior
4 SH

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH
or STRT 4514 Internal Case Competition Challenge

## INTERNATIONAL BUSINESS MAJOR REQUIREMENTS

## Required Courses

Complete the following three courses:
INTB $1201 \quad$ Global Environment of International 4 SH

INTB 3301 Living and Working Abroad 4 SH
INTB $4501 \quad$ Advanced Global Management 4 SH

## Elective

Complete one course from the following list:

| FINA 4320 | International Financial Management | 4 SH |
| :--- | :--- | :--- |
| INTB 3310 | Cultural Aspects of International | 4 SH |
|  | $\quad$ Business |  |
| INTB 4520 | International Innovation Management | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |


| INTB 4993 | Independent Study | 4 SH |
| :--- | :--- | :--- |
| MKTG 4512 | International Marketing | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SECOND BUSINESS CONCENTRATION |  |  |
| Complete one of the following business concentrations: |  |  |
| Concentration in |  |  |
| Accounting |  |  |
| ACCOUNTING | REQUIRED COURSES |  |
| Complete the following two courses: |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 <br> Strategic Cost Analysis for Decision <br> Making | 4 SH |
| :--- | :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |

Concentration in Entrepreneurship and Innovation

| Complete the following four courses: |  |  |
| :--- | :--- | :--- |
| ENTR 2201 | The Entrepreneurial Universe |  |
| ENTR 3301 | Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial <br> Finance | 4 SH |
|  | SH |  |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad$ Corporate Finance $\quad 4 \mathrm{SH}$
FINA 3303 Investments 4 SH
FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management Information Systems

MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |
| MANAGEMENT INFORMATION SYSTEMS ELECTIVE |  |  |
| COURSE |  |  |
| Complete one additional MISM course or one course from the |  |  |
| following list: |  |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 4 SH |

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad$ Marketing Management 4 SH
MKTG 3401 Marketing Research
4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 2 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

INTERNATIONAL BUSINESS-CHINESE LANGUAGE REQUIREMENT
Complete the following two courses:

| CHNS 1101 | Elementary Chinese 1 | 4 SH |
| :--- | :--- | :--- |
| CHNS 1102 | Elementary Chinese 2 | 4 SH |

INTERNATIONAL BUSINESS—MINOR IN EAST ASIAN STUDIES

## Core Course

Complete the following course:
ASNS $1150 \quad$ East Asian Studies 4 SH
Required Courses
Complete the following two courses:
HIST $2350 \quad$ Modern China 4 SH
POLS $3485 \quad$ Government and Politics in China 4 SH

## Elective Courses

Complete two courses from the following list. They may include up to two courses taken as part of an approved study-abroad program:
ASNS 2245 Asian-American History 4 SH
ENGL 3672 Asian-American Literature 4 SH
HIST 1243 American Images of China 4 SH
HIST $1252 \quad$ Japanese Literature and Culture 4 SH
HIST $1253 \quad 4$ SH
HIST $1507 \quad$ Chinese Civilization in Her Eyes 4 SH
HIST 2351 Japan since 18504 SH
HIST $4650 \quad$ Topics in Asian History 4 SH

## BUSINESS GPA REQUIREMENTS

2.000 GPA required in business courses
3.000 overall GPA required for study abroad
2.000 GPA required in the minor in East Asian studies

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BSIB—Bachelor of Science in International Business with Minor in French

## INTERNATIONAL BUSINESS GENERAL EDUCATION REQUIREMENTS

## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB 3301 Living and Working Abroad 4 SH

Mathematics
Complete one calculus course:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> Calculus 1 for Science and | 6 SH |
| MATH 1341 | Engineering |  |
| MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
| Statistics | Complete the following course:  <br> MGSC 1201 Business Statistics |  |

## Macroeconomics and Microeconomics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |

## Finance

Complete the following course:
FINA $2201 \quad$ Financial Management 4 SH
Management Information Systems
Complete the following course:
MISM $2301 \quad$ Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing
4 SH

Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management
Organizational Behavior
Complete the following course:

ORGB 3201 Organizational Behavior
4 SH

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH
or STRT 4514 Internal Case Competition Challenge

## INTERNATIONAL BUSINESS MAJOR REQUIREMENTS

## Required Courses

Complete the following three courses:
INTB 1201 Global Environment of International Business
INTB $3301 \quad$ Living and Working Abroad 4 SH
INTB $4501 \quad$ Advanced Global Management 4 SH

## Elective

Complete one course from the following list:

| FINA 4320 | International Financial Management | 4 SH |
| :--- | :--- | :--- |
| INTB 3310 | Cultural Aspects of International | 4 SH |
|  | $\quad$ Business |  |
| INTB 4520 | International Innovation Management | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| INTB 4993 | Independent Study | 4 SH |
| MKTG 4512 | International Marketing | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |

## SECOND BUSINESS CONCENTRATION

Complete one of the following business concentrations:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis $1 \quad 4$ SH
ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems |
| :--- | :---: |
| ACCT 3416 | Strategic Cost Analysis for Decision |
|  | Making |
| ACCT 4412 | Auditing and Other Assurance <br>  <br> Services |
| ACCT 4414 | Income Tax Determination and <br>  <br>  <br> Planning |

## Concentration in Entrepreneurship and Innovation

Complete the following four courses:

| ENTR 2201 | The Entrepreneurial Universe <br> Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| :--- | :--- | :--- |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial <br> Finance | 4 SH |
|  | End |  |

Concentration in Finance
FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad 4$ SH
FINA 3303 Investments 4 SH

FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:
MISM $3403 \quad$ Data Management and Information 4 SH Analysis
MISM $3404 \quad$ Business Data Communications 4 SH
MISM $4501 \quad$ Business Systems Integration 4 SH

## MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE

Complete one additional MISM course or one course from the following list:
ACCT 3403 Accounting Information Systems 4 SH
MKTG $4508 \quad$ Electronic Marketing 4 SH

SCHM $2201 \quad$ Supply Chain Management 2 SH
Concentration in Marketing
MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH
MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 2 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## INTERNATIONAL BUSINESS-MINOR IN FRENCH

## Elementary French

Complete the following two courses:

| FRNH 1101 | Elementary French 1 |
| :--- | :--- |
| FRNH 1102 | Elementary French 2 |

## Intermediate French

Complete the following two courses:

| FRNH 2201 | Intermediate French 1—BSIB | 4 SH |
| :--- | :--- | :--- |
| FRNH 2202 | Intermediate French 2—BSIB | 4 SH |

## Advanced French

Complete the following two courses:
FRNH 3201 Advanced French 1—BSIB 4 SH
FRNH 3202 Advanced French 2—BSIB

## BUSINESS GPA REQUIREMENTS

2.000 GPA required in business courses
3.000 overall GPA required for study abroad
2.000 GPA required in the minor in French

NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## BSIB—Bachelor of Science in International Business with Minor in German

## INTERNATIONAL BUSINESS GENERAL EDUCATION REQUIREMENTS

## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB 3301 Living and Working Abroad
4 SH
Mathematics
Complete one calculus course:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and <br>  <br> MATH 1342 |
| Engineering <br> Calculus 2 for Science and | 4 SH |  |
|  |  | 4 SH |

4 SH

## Statistics

Complete the following course:
MGSC $1201 \quad$ Business Statistics 4 SH

## Macroeconomics and Microeconomics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

$$
4 \mathrm{SH}
$$

## Finance

Complete the following course:
FINA $2201 \quad$ Financial Management 4 SH
Management Information Systems
Complete the following course:
MISM 2301 Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 2 SH
Organizational Behavior
Complete the following course:
ORGB $3201 \quad$ Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH
or STRT 4514 Internal Case Competition Challenge 4 SH

## INTERNATIONAL BUSINESS MAJOR REQUIREMENTS

## Required Courses

Complete the following three courses:
INTB $1201 \quad$ Global Environment of International 4 SH
INTB $3301 \quad$ Living and Working Abroad 4 SH
INTB $4501 \quad$ Advanced Global Management 4 SH

## Elective

Complete one course from the following list:

| FINA 4320 | International Financial Management | 4 SH |
| :--- | :--- | :--- |
| INTB 3310 | Cultural Aspects of International | 4 SH |

INTB $3310 \quad$ Cultural Aspects of International 4 SH

INTB 4520 International Innovation Management 4 SH
INTB $4602 \quad$ European Union and Globalization 4 SH
INTB $4993 \quad$ Independent Study 4 SH

MKTG 4512 International Marketing 4 SH
SCHM $3301 \quad$ Global Supply Chain Management 4 SH

## SECOND BUSINESS CONCENTRATION

Complete one of the following business concentrations:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis $1 \quad 4$ SH

ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems |
| :---: | :---: |
| ACCT 3416 | Strategic Cost Analysis for Decision Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and Planning |

## Concentration in Entrepreneurship and Innovation

Complete the following four courses:

| ENTR 2201 | The Entrepreneurial Universe |  |
| :--- | :---: | :---: |
| ENTR 3301 | Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth <br> ENTR 4501 <br> Venture Creation and Entrepreneurial <br> Finance | 4 SH |
| Concentration in Finance |  |  |

FINANCE REQUIRED COURSES
Complete the following two courses:

| FINA 3301 | Corporate Finance | 4 SH |
| :--- | :--- | :--- |
| FINA 3303 | Investments | 4 SH |

FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT 3303 Building Your Management Skills
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |

MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:

| ACCT 3403 | Accounting Information Systems | 4 SH |
| :--- | :--- | :--- |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 2 SH |

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG 3301 Marketing Management 4 SH

MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 2 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## INTERNATIONAL BUSINESS—MINOR IN GERMAN

## Elementary German

Complete the following two courses:

| GRMN 1101 | Elementary German 1 | 4 SH |
| :--- | :--- | :--- |
| GRMN 1102 | Elementary German 2 | 4 SH |

## Intermediate German

| Complete the following two courses: |  |  |
| :--- | :--- | :--- |
| GRMN 2201 | Intermediate German 1—BSIB | 4 SH |
| GRMN 2202 | Intermediate German 2—BSIB | 4 SH |

## Advanced German

Complete the following two courses:
GRMN 3201 Advanced German 1—BSIB 4 SH
GRMN 3202 Advanced German 2—BSIB 4 SH

## BUSINESS GPA REQUIREMENTS

2.000 GPA required in business courses
3.000 overall GPA required for study abroad
2.000 GPA required in the minor in German

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

COOPERATIVE EDUCATION
UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BSIB—Bachelor of Science in International Business with Minor in International Affairs

## INTERNATIONAL BUSINESS GENERAL EDUCATION REQUIREMENTS

## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB 3301 Living and Working Abroad

## Mathematics

Complete one calculus course:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and |
| MATH 1342 | Engineering <br> Calculus 2 for Science and <br> Engineering | 4 SH |
|  | SH |  |

## Statistics

Complete the following course:
MGSC $1201 \quad$ Business Statistics
Macroeconomics and Microeconomics
Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

## Finance

Complete the following course:
FINA 2201 Financial Management
4 SH

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems

## Marketing

Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 2 SH
Organizational Behavior
Complete the following course:
ORGB 3201 Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:

| STRT 4501 | Strategy in Action | 4 SH |
| :--- | :--- | :--- |
| or STRT 4514 | Internal Case Competition Challenge | 4 SH |

## INTERNATIONAL BUSINESS MAJOR REQUIREMENTS

## Required Courses

Complete the following three courses:

| INTB 1201 | Global Environment of International <br> Business | 4 SH |
| :--- | :--- | :--- |
| INTB 3301 | Living and Working Abroad <br> Advanced Global Management | 4 SH |
| INTB 4501 |  | 4 SH |
| Elective |  |  |
| Complete one course from the following list: |  |  |
| FINA 4320 | International Financial Management | 4 SH |
| INTB 3310 | Cultural Aspects of International | 4 SH |
|  | $\quad$ Business |  |
| INTB 4520 | International Innovation Management | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| INTB 4993 | Independent Study |  |
| MKTG 4512 | International Marketing | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |

## SECOND BUSINESS CONCENTRATION

Complete one of the following business concentrations:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis 14 SH
ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 <br> Strategic Cost Analysis for Decision <br> Making | 4 SH |
| :--- | :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |

## Concentration in Entrepreneurship and Innovation

| Comple | our courses: |  |
| :---: | :---: | :---: |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad 4$ SH

FINA 3303 Investments

## FINANCE ELECTIVE COURSES

Complete two additional FINA courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |

MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:
ACCT $3403 \quad$ Accounting Information Systems 4 SH
MKTG $4508 \quad$ Electronic Marketing 4 SH
SCHM $2201 \quad$ Supply Chain Management 4 SH

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG 3301 Marketing Management 4 SH
MKTG 3401 Marketing Research
4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:
SCHM 2201 Supply Chain Management 2 SH
SCHM $3301 \quad$ Global Supply Chain Management 4 SH
SCHM $3310 \quad$ The Transportation Industries 4 SH
SCHM $4401 \quad$ Advanced Problems in Supply Chain 4 SH
Management

## INTERNATIONAL BUSINESS-INTERNATIONAL MANAGEMENT LANGUAGE REQUIREMENT

Complete two language courses in one foreign language; the second course must be at a more advanced level than the first course.

## INTERNATIONAL BUSINESS—MINOR IN INTERNATIONAL AFFAIRS

## Required Course

Complete the following course:
INTL $1101 \quad$ Globalization and International Affairs 4 SH
Regional Analysis Courses
Complete two courses from the following list:

AFRICA
AFRS 2307
AFRS 2390
or HIST 2390
AFRS 2391
AFRS 2392
AFRS 3424

AFRS 3428
AFRS 3460

AFRS 3470
AFRS 4645
AFRS 4690
ANTH 4510
HIST 1180
HIST 2397
MUSC 1128
ASIA
ASNS 1150
ASNS 3444
CLTR 1260
CLTR 1500
CLTR 1700
CLTR 2501
HIST 1189
HIST 1250
HIST 1251
HIST 1252
HIST 1253
HIST 1254
HIST 1507
HIST 2313

HIST 2350
HIST 2351
HIST 2352
HIST 3452
HIST 4650
POLS 3480
POLS 3485
RELS 1275
RELS 1290
RELS 3398
EUROPE
CLTR 1265
CLTR 1280
CLTR 1501
CLTR 1503
CLTR 1504
CLTR 2504
ECON 1293
HIST 1170
HIST 1272

| Africa Today | SH |
| :---: | :---: |
| Africa and the World in Early Times | 4 SH |
| Africa and the World in Early Times | SH |
| Modern African Civilization | SH |
| African Diaspora | SH |
| Black Pandemics/Epidemiology of Disease | 4 SH |
| African Languages | 4 SH |
| Contemporary Government and Politics in Africa | 4 SH |
| Identity and Nationalism in Africa | 4 SH |
| National Model OAU/African Union | 4 SH |
| Topics in African History | 4 SH |
| Anthropology of Africa | 4 SH |
| African History | SH |
| Colonialism and Contemporary Africa | 4 SH |
| Music of Africa | 4 SH |
| East Asian Studies | 4 SH |
| Topics in Japanese Studies | SH |
| Japanese Film | SH |
| Backgrounds of Chinese Culture | SH |
| Introduction to Japanese Pop Culture | SH |
| Chinese Film: Gender and Ethnicity | 4 SH |
| Introduction to South Asian History | SH |
| Emergence of East Asia | S |
| Modern East Asia | 4 SH |
| Japanese Literature and Culture | SH |
| History of Vietnam Wars | SH |
| Contemporary China | SH |
| Chinese Civilization in Her Eyes | 4 SH |
| Gender and Revolution in Russia and China | 4 SH |
| Modern China | 4 SH |
| Japan since 1850 | SH |
| Contemporary Japan and Korea | SH |
| Global Chinese Migration | SH |
| Topics in Asian History | 4 SH |
| Government and Politics in Japan | 4 SH |
| Government and Politics in China | 4 SH |
| Eastern Religions | SH |
| Chinese Philosophy and Religion | 4 SH |
| Religion and Culture in Indian Cinema | 4 SH |
| Spanish Civil War on Film | 4 SH |
| French Film and Culture | SH |
| Introduction to French Culture | SH |
| Introduction to Italian Culture | 4 SH |
| Introduction to Spanish Culture | SH |
| Modern German Film and Literature | 4 SH |
| European Economic History | 4 SH |
| Introduction to European History | 4 SH |
| The Invention of Europe 500-1500 | 4 SH |


| HIST 1280 | Hitler, Germany, and the Holocaust | 4 SH | LACS 1220 | Latino, Latin American, and | 4 SH |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 1281 | Holocaust | 4 SH |  | Caribbean Studies |  |
| HIST 1294 | Strangers in a Strange Land? | 4 SH | LITR 3501 | Caribbean Literature and Culture | 4 SH |
|  | European Jewish History 1750-1945 |  | MUSC 1131 | Music of Latin America and the Caribbean | 4 SH |
| HIST 2371 | Europe 1870-1921 | 4 SH | POLS 3475 | Government and Politics in Latin America | 4 SH |
| HIST 2372 | Gender and Society in Modern Europe | 4 SH |  |  |  |
| HIST 2375 | Culture and Identity in Early Modern England | 4 SH | MIDDLE EAST CLTR 1502 |  |  |
|  |  |  |  | Introduction to Arabic Culture | 4 SH |
| HIST 2376 | The British Empire | 4 SH | ECON 1292 | Economics of the Middle East | 4 SH |
| HIST 2377 | Ireland and the Irish Migration | 4 SH | HIST 1185 | Introductio <br> History | 4 SH |
| HIST 2388 | Borderlands: World War II in Eastern Europe | 4 SH |  |  |  |
|  |  |  | HIST 1290 | Modern Middle East | 4 SH |
| HIST 3475 | The Culture of Europe | 4 SH | HIST 1291 | The Ottoman Empire (1300-1920) | 4 SH |
| HIST 3485 | Vienna, Prague, Budapest | 4 SH | HIST 1292 | Jerusalem: Narratives and Visions | 4 SH |
| HIST 4670 | Topics in European History | 4 SH | HIST 2393 | Islam and Empires | 4 SH |
| HIST 4682 | Topics in East European History | 4 SH | HIST 2394 | Islamic Nationalism | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH | HIST 2395 | Middle East in the Twentieth Century | 4 SH |
| LITR 3502 | Cervantes and His Times | 4 SH | HIST 2396 | The Middle East and Modernity | 4 SH |
| LITR 4550 | Masterpieces of French Literature 1 | 4 SH | HIST 4691 | Topics in Middle Eastern History | 4 SH |
| LITR 4551 | Masterpieces of French Literature 2 | 4 SH | INTL 1160 | Middle East Studies | 4 SH |
| LITR 4555 | French Poetry | 4 SH | INTL 2360 | Human Rights in the Middle East | 4 SH |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century | 4 SH | INTL 3565 | Morocco: History, Cultures, and Economic Development in the | 4 SH |
| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century | 4 SH | POLS 3465 | Mediterranean Basin Government and Politics in the Middle | 4 SH |
| LITR 4850 | The Splendid Century | 4 SH |  | East |  |
| LITR 4860 | Age of Enlightenment | 4 SH | POLS 3470 | Arab-Israeli Conflict | 4 SH |
| LITR 4870 | Romantic Heritage | 4 SH | POLS 4915 | Model Arab League | 4 SH |
| POLS 3435 | Politics in Western Europe | 4 SH | RELS 1280 | Islam | 4 SH |
| POLS 3440 | Politics in Northern Ireland | 4 SH | RELS 1285 | Jewish Religion and Culture | 4 SH |
| POLS 3445 | Politics in Central and Eastern Europe | 4 SH | RUSSIA |  |  |
| POLS 4917 | Model European Union | 4 SH | HIST 1285 | Introduction to Russian Civilization | 4 SH |
| RELS 1270 | Judaism, Christianity, and Islam: Western Religions | 4 SH | HIST 1286 | History of the Soviet Union | 4 SH |
| SOCL 4535 | European Union: Social and Political | 4 SH | HIST 2313 | Gender and Revolution in Russia and China | 4 SH |
| LATIN AMERICA |  |  | HIST 2386 | History of Soviet Cinema | 4 SH |
| AFAM 2345 | The Black Experience in the | 4 SH | HIST 2387 | Soviet Secret Police | 4 SH |
|  | Caribbean |  | HIST 3486 | Commissars and Managers: Soviet | 4 SH |
| ANTH 4500 | Latin American Society and Development | 4 SH | HIST 4680 | Economic History Topics in Russian History | 4 SH |
| CLTR 1240 | Latin American Film | 4 SH | HIST 4681 | Topics in Soviet History | 4 SH |
| CLTR 1505 | Introduction to Latin American Culture | 4 SH | IDSC 3443 | Topics in Russian Studies | 4 SH |
|  |  |  | LITR 3503 | Russian Literature in Translation | 4 SH |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 SH | POLS 3450 | Government and Politics in Russia | 4 SH |
|  |  |  | POLS 3455 | Russian Foreign Policy | 4 SH |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 SH | SOCL 1215 | Society and Culture in Russia | 4 SH |
| HIST 1187 | Introduction to Latin American History | 4 SH | Global Dynamics Courses |  |  |
|  |  |  | Complete the following course as part of the NU Core: |  |  |
| HIST 1260 | Modern Latin America | 4 SH | POLS 1155 and complet | Comparative Politics <br> other additional course from the follow | $4 \text { SH }$ list: |
| $\begin{aligned} & \text { HIST } 1261 \\ & \text { HIST } 4660 \end{aligned}$ | The Modern Caribbean <br> Topics in Latin American History | 4 SH |  | Third World Political Relations | 4 SH |
|  |  |  | AFAM 4639 | Globalism, Racism, and Human | 4 SH |
|  |  |  |  |  |  |


| AFRS 1185 | Gender in the African Diaspora | 4 SH |
| :---: | :---: | :---: |
| AFRS 3410 | Religion and Spirituality in the African Diaspora | 4 SH |
| AFRS 4585 | Current Issues in the African Diaspora | 4 SH |
| ANTH 1101 | Peoples and Cultures | 4 SH |
| ANTH 2305 | Global Markets and Local Culture | 4 SH |
| ANTH 2315 | Religion and Modernity | 4 SH |
| ANTH 3450 | Globalization: Theory and Practice | 4 SH |
| ARTH 3410 | Art of the African Diaspora | 4 SH |
| COMM 2303 | Global and Intercultural Communication | 4 SH |
| ECON 1290 | The Global Economy | 4 SH |
| ECON 3404 | International Food Economics and Policy | 4 SH |
| ECON 4635 | International Economics | 4 SH |
| HIST 1110 | Introduction to World History | 4 SH |
| HIST 1202 | Global Inequity | 4 SH |
| HIST 1204 | Third World Women | 4 SH |
| HIST 1205 | The Global Economy | 4 SH |
| HIST 1211 | World History since 1945 | 4 SH |
| HIST 1214 | War in the Modern World | 4 SH |
| HIST 2315 | Approaches to World History | 4 SH |
| HIST 3452 | Global Chinese Migration | 4 SH |
| HUSV 4920 | International Human Services | 4 SH |
| IDSC 4905 | Cultural Studies: An International Discourse | 4 SH |
| IDSC 4906 | Social/Economic Development Lab | 4 SH |
| INTB 1203 | International Business and Global Social Responsibility | 4 SH |
| INTB 3310 | Cultural Aspects of International Business | 4 SH |
| INTL 3460 | Transnational Activism in Global Civil Society | 4 SH |
| INTL 4939 | Dialogue of Civilizations: Globalization, Humanities, and Cultural Studies | 4 SH |
| INTL 4940 | Global Corps Practicum | 4 SH |
| LING 3412 | Language and Culture | 4 SH |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective | 4 SH |
| MUSC 3470 | War and Music | 4 SH |
| PHIL 1130 | Ethics: East and West | 4 SH |
| POLS 1155 | Comparative Politics | 4 SH |
| POLS 1160 | International Relations | 4 SH |
| POLS 3405 | International Political Economy | 4 SH |
| POLS 3407 | International Organizations | 4 SH |
| POLS 3408 | International Security | 4 SH |
| POLS 3415 | Ethnic Conflict in Comparative Politics | 4 SH |
| POLS 3420 | National Security, War, and Terrorism | 4 SH |
| POLS 3487 | Politics of Developing Nations | 4 SH |
| POLS 4510 | International Law | 4 SH |
| POLS 4515 | Democracy in Comparative Politics | 4 SH |


| POLS 4530 | Revolution, Civil War, and <br> Insurrection <br> Special Topics: Comparative Politics <br> and International Relations | 4 SH |
| :--- | :---: | ---: |
| POLS 4580 | 4 SH |  |
| POLS 4610 | Seminar in International Relations | 4 SH |
| POLS 4910 | 4 SH |  |
| ELECTIVES REQUIREMENT FOR INTERNATIONAL |  |  |
| BUSINESS |  |  |

## BSIB—Bachelor of Science in International Business with Minor in Italian

## INTERNATIONAL BUSINESS GENERAL EDUCATION

 REQUIREMENTS
## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB $3301 \quad$ Living and Working Abroad 4 SH

## Mathematics

Complete one calculus course:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :---: | :---: | :---: |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers | 6 SH |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |

## Statistics

Complete the following course:
MGSC $1201 \quad$ Business Statistics 4 SH

## Macroeconomics and Microeconomics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

## Finance

Complete the following course:
FINA 2201 Financial Management

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing
4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management
Organizational Behavior
Complete the following course:
ORGB 3201 Organizational Behavior

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH
or STRT 4514 Internal Case Competition Challenge 4 SH
INTERNATIONAL BUSINESS MAJOR
REQUIREMENTS
Required Courses
Complete the following three courses:
INTB $1201 \quad$ Global Environment of International 4 SH

INTB 3301 Living and Working Abroad 4 SH
INTB $4501 \quad$ Advanced Global Management 4 SH
Elective
Complete one course from the following list:

| FINA 4320 | International Financial Management | 4 SH |
| :--- | :--- | :--- |
| INTB 3310 | Cultural Aspects of International | 4 SH |
|  | $\quad$ Business |  |
| INTB 4520 | International Innovation Management | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| INTB 4993 | Independent Study | 4 SH |
| MKTG 4512 | International Marketing | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |

## SECOND BUSINESS CONCENTRATION

Complete one of the following business concentrations:

## Concentration in Accounting

## ACCOUNTING REQUIRED COURSES

Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4412 | Making <br> Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |

Concentration in Entrepreneurship and Innovation
Complete the following four courses:

| ENTR 2201 | The Entrepreneurial Universe <br> Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| :--- | :--- | :--- |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial <br> Finance | 4 SH |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad 4$ SH
FINA 3303 Investments 4 SH

FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.
Concentration in Management Information Systems
MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:

| MISM 3403 | Data Management and Information | 4 SH |
| :--- | :--- | :--- |
|  | Analysis |  |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |

MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:

| ACCT 3403 | Accounting Information Systems | 4 SH |
| :--- | :--- | :--- |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 2 SH |

Concentration in Marketing
MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH
MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 2 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain <br>  <br> $\quad 4$ SH |  |
|  |  |  |

## INTERNATIONAL BUSINESS—MINOR IN ITALIAN

## Elementary Italian

Complete the following two courses:

| ITLN 1101 | Elementary Italian 1 | 4 SH |
| :--- | :--- | :--- |
| ITLN 1102 | Elementary Italian 2 | 4 SH |

## Intermediate Italian

Complete the following two courses:
ITLN 2201 Intermediate Italian 1—BSIB 4 SH
ITLN 2202 Intermediate Italian 2—BSIB 4 SH

## Advanced Italian

Complete the following two courses:
ITLN $3201 \quad$ Advanced Italian 1—BSIB 4 SH
ITLN 3202 Advanced Italian 2—BSIB 4 SH

## BUSINESS GPA REQUIREMENTS

2.000 GPA required in business courses
3.000 overall GPA required for study abroad
2.000 GPA required in the minor in Italian

NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## BSIB—Bachelor of Science in International Business with Minor in Spanish

## INTERNATIONAL BUSINESS GENERAL EDUCATION REQUIREMENTS

## Living and Working Abroad

Complete the following course, which also satisfies the NU Core comparative study of cultures requirement:
INTB $3301 \quad$ Living and Working Abroad 4 SH

Mathematics
Complete one calculus course:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and |
| MATH 1342 | Engineering <br> Calculus 2 for Science and | 4 SH |
|  | Engineering | 4 SH |

## Statistics

Complete the following course:
MGSC $1201 \quad$ Business Statistics 4 SH
Macroeconomics and Microeconomics
Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON $1116 \quad$ Principles of Microeconomics 4 SH
BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

Finance
Complete the following course:
FINA $2201 \quad 4$ SH
Management Information Systems
Complete the following course:
MISM $2301 \quad$ Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 2 SH
Organizational Behavior
Complete the following course:
ORGB $3201 \quad$ Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:

| STRT 4501 | Strategy in Action | 4 SH |
| :--- | :--- | :--- |
| or STRT 4514 | Internal Case Competition Challenge | 4 SH |

## INTERNATIONAL BUSINESS MAJOR

 REQUIREMENTSRequired Courses
Complete the following three courses:

| INTB 1201 | Global Environment of International <br> Business | 4 SH |
| :--- | :--- | :--- |
| INTB 3301 | Living and Working Abroad <br> Advanced Global Management | 4 SH |
| INTB 4501 |  | 4 SH |
| Elective |  |  |
| Complete one course from the following list: |  |  |
| FINA 4320 | International Financial Management | 4 SH |
| INTB 3310 | Cultural Aspects of International | 4 SH |
|  | $\quad$ Business |  |
| INTB 4520 | International Innovation Management | 4 SH |
| INTB 4602 | European Union and Globalization | 4 SH |
| INTB 4993 | Independent Study |  |
| MKTG 4512 | International Marketing | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |

## SECOND BUSINESS CONCENTRATION

Complete one of the following business concentrations:
Concentration in Accounting
ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis 14 SH
ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 <br> Strategic Cost Analysis for Decision <br> Making | 4 SH |
| :--- | :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |

Concentration in Entrepreneurship and Innovation

| Complete the following four courses: |  |
| :--- | :---: |
| ENTR 2201 | The Entrepreneurial Universe |
| ENTR 3301 | Opportunity Assessment and |
|  | Entrepreneurship Marketing |
| ENTR 3401 | Small Business Management, <br>  <br> Operations, and Growth |
| ENTR 4501 | Venture Creation and Entrepreneurial |
|  | Finance |


| Concentration in Finance |  |  |
| :---: | :---: | :---: |
| FINANCE REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| FINA 3301 | Corporate Finance | 4 SH |
| FINA 3303 | Investments | 4 SH |
| FINANCE ELECTIVE COURSES |  |  |
| Complete two additional FINA courses. |  |  |
| Concentration in Management |  |  |
| MANAGEMENT REQUIRED COURSE |  |  |
| Complete the following course: |  |  |
| MGMT 3303 | Building Your Management Skills | 4 SH |
| MANAGEMENT ELECTIVE COURSES |  |  |
| Complete three additional MGMT courses. |  |  |
| Concentration in Management Information Systems |  |  |
| MANAGEMENT INFORMATION SYSTEMS REQUIRED |  |  |
| COURSES |  |  |
| Complete the following three courses: |  |  |
| MISM 3403 | Data Management and Information Analysis | 4 SH |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |
| MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE |  |  |
| Complete one additional MISM course or one course from the following list: |  |  |
| ACCT 3403 | Accounting Information Systems | 4 SH |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 2 SH |
| Concentration in Marketing |  |  |
| MARKETING REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| MKTG 3301 | Marketing Management | 4 SH |
| MKTG 3401 | Marketing Research | 4 SH |
| MARKETING ELECTIVE COURSES |  |  |
| Complete two additional MKTG courses. |  |  |
| Concentration in Supply Chain Management |  |  |
| Complete the following four courses: |  |  |
| SCHM 2201 | Supply Chain Management | 2 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain Management | 4 SH |
| INTERNATIONAL BUSINESS—MINOR IN SPANISH |  |  |
| Elementary Spanish |  |  |
| Complete the following two courses: |  |  |
| SPNS 1101 | Elementary Spanish 1 | 4 SH |
| SPNS 1102 | Elementary Spanish 2 | 4 SH |

## Intermediate Spanish

Complete the following two courses:
SPNS 2201 Intermediate Spanish 1—BSIB 4 SH

SPNS 2202 Intermediate Spanish 2—BSIB

## Advanced Spanish

Complete the following two courses:
SPNS 3201 Advanced Spanish 1—BSIB
4 SH
SPNS 3202 Advanced Spanish 2—BSIB
4 SH
BUSINESS GPA REQUIREMENTS
2.000 GPA required in business courses
3.000 overall GPA required for study abroad
2.000 GPA required in the minor in Spanish

NU CORE REQUIREMENTS
See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

## MANAGEMENT

www.cba.neu.edu/undergrad

Office: 304 Hayden Hall
Phone: 617.373.2452
Fax: 617.373.2491
E-mail contact: Constance Ackerman, Administrative Secretary, c.ackerman@neu.edu

M
anaging people, projects, and programs requires a considerable range of knowledge and skills. Effective managers must know the business, be interpersonally competent, behave ethically, diagnose and deal with human and organizational dynamics, and the like. To be sure, students must increase their knowledge of good management practices. For example, they need to learn principles of motivation, leadership, problem solving, conflict resolution, planning, organizational change, and their impact on business results. In addition, students must also improve their managing skills. Simply said, they need to learn "how to" manage. The aim of the management concentration is both to increase knowledge of management so that students have a strong substantive "core" and to increase management skills.

The curriculum offers courses in a range of relevant management topics. Some of the courses, including the required core course, are primarily skills-oriented; they teach "how to." Others are more content-oriented; they teach "about management." To enable students to gain exposure to a broad
scope of management topics and issues, some of the courses consist of two topics, each of which is a half-semester course, which affords you an opportunity to learn from two different faculty experts.

## BSBA—Bachelor of Science in Business Administration with Concentration in Management BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and |
| MATH 1342 | Engineering <br> Calculus 2 for Science and <br> Engineering | 4 SH |
|  | M SH |  |
|  |  |  |

## Statistics

Complete the following course:
MGSC 1201 Business Statistics
Macroeconomics and Microeconomics
Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH

ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT 1201 Financial Accounting and Reporting 4 SH

ACCT $2301 \quad$ Managerial Accounting 4 SH
Finance
Complete the following course:
FINA 2201 Financial Management
International Business/Social Responsibility
Complete the following course:

| INTB 1203 | International Business and Global <br> Social Responsibility |
| :--- | :--- |

## Management Information Systems

Complete the following course:
MISM $2301 \quad$ Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 4 SH

## Organizational Behavior

Complete the following course:
ORGB 3201 Organizational Behavior

## Strategy in Action

Complete the following course:
STRT 4501 Strategy in Action

## CONCENTRATION IN MANAGEMENT

Management Required Course
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills
Management Elective Courses
Complete three additional MGMT courses.
ELECTIVES/SECOND BUSINESS CONCENTRATION
Complete eight elective courses. Four electives can be used toward completion of an additional business concentration as outlined below:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

ACCOUNTING ELECTIVE COURSES

| Complete two courses from the following list: |  |  |
| :---: | :---: | :---: |
| ACCT 3403 | Accounting Information Systems | 4 SH |
| ACCT 3416 | Strategic Cost Analysis for Decision Making | 4 SH |
| ACCT 4412 | Auditing and Other Assurance Services | 4 SH |
| ACCT 4414 | Income Tax Determination and Planning | 4 SH |
| Concentration in Entrepreneurship and Innovation |  |  |
| Complete the following four courses: |  |  |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail Creation | 4 SH |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad 4$ SH
FINA 3303 Investments 4 SH
FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management Information Systems

MANAGEMENT INFORMATION SYSTEMS REQUIRED

## COURSES

Complete the following three courses:

| MISM 3403 | Data Management and Information <br> Analysis | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |
| MANAGEMENT INFORMATION SYSTEMS ELECTIVE |  |  |
| COURSE |  |  |
| Complete one additional MISM course or one course from the |  |  |
| following list: |  |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 4 SH |

Concentration in Marketing
MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH
MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.

## Concentration in Supply Chain Management

Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain <br> $\quad 4$ SH |  |
|  | Management |  |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required Minimum 2.000 GPA required

## MANAGEMENT INFORMATION SYSTEMS

www.cba.neu.edu/undergrad
Office: 214 Hayden Hall
Phone: 617.373.3132
Fax: 617.373.3166
E-mail contact: ugbs@neu.edu

Inthe industrial era of the past, management of materials and products was the focus. In the global Information Age, success for individuals and for companies requires the ability to manage information effectively.

The goal of the management information systems (MIS) concentration is to teach future managers how to use information systems (IS) and technology (IT) to help organizations and individuals perform more efficiently and effectively. This can lead the student in two career directions:

- To become a professional in the information systems function of a company.
- To harness the power of information systems in another functional area such as accounting, finance, marketing, etc.

Students have an opportunity to develop new, cutting-edge approaches that allow them to use the powerful resource of information systems to its greatest advantage. Understanding how to get the right information in the right form and format to the right people at the right time is essential in today's business world, especially when companies and the individuals that do this well are achieving significant competitive advantage.

Students study database management; telecommunications; systems integration and design; and other IS topics, such as digital multimedia, expert systems, electronic business, and knowledge management.

IS can only be effectively designed and implemented when understood in the context of the individual user, the work group, the organization, and society. Therefore, the study of MIS combines a focus on technology with a focus on organizational systems within the business context. Not only do students have an opportunity to develop technical and problem-solving skills that are in high demand by employers, they are taught to identify how IS can best be used within a business organization.

Students who wish to become MIS managers will need to interact frequently with other managers throughout an organization. Therefore, students are encouraged to complete a dual concentration in MIS and another area of business. Graduates of this program enter a wide range of professions that suit their particular interests. Professional options include systems analyst, programmer, database designer and administrator, Webmaster, software help-desk expert, project specialist, consultant, network administrator, and IT specialist within other departments, such as financial services, accounting, marketing, or manufacturing.

## BSBA—Bachelor of Science in Business Administration with Concentration in Management Information Systems

## BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:
MATH 1231 Calculus for Business and Economics 4 SH

MATH 1241 Calculus 14 SH
MATH 1242 Calculus 2 SH
MATH $1251 \quad$ Calculus and Differential Equations 4 SH for Biology 1
MATH $1252 \quad$ Calculus and Differential Equations 4 SH
for Biology 2
MATH $1340 \quad$ Intensive Calculus for Engineers 6 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH
Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH
Engineering

## Statistics

Complete the following course:
MGSC 1201 Business Statistics
Macro- and Microeconomics
Complete the following two courses:
ECON 1115 Principles of Macroeconomics 4 SH

ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:
ACCT $1201 \quad$ Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

## Finance

Complete the following course:
FINA $2201 \quad 4$ SH
International Business/Social Responsibility
Complete the following course:
INTB 1203 International Business and Global 4 SH
Social Responsibility

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management
Organizational Behavior
Complete the following course:
ORGB 3201 Organizational Behavior
4 SH

| Strategy in Action |  |  |
| :---: | :---: | :---: |
| Complete the following course: |  |  |
| STRT 4501 | Strategy in Action | 4 SH |
| CONCENTRATION IN MANAGEMENT |  |  |
| INFORMATION SYSTEMS |  |  |
| Management Information Systems Required Courses |  |  |
| Complete the following three courses: |  |  |
| MISM 3403 | Data Management and Information Analysis | 4 SH |
| MISM 3404 | Business Data Communications | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |
| Management Information Systems Elective Course |  |  |
| Complete one additional MISM course or one course from the following list: |  |  |
| ACCT 3403 | Accounting Information Systems | 4 SH |
| MKTG 4508 | Electronic Marketing | 4 SH |
| SCHM 2201 | Supply Chain Management | 4 SH |
| ELECTIVES/SECOND BUSINESS CONCENTRATION |  |  |
| Complete eight elective courses. Four electives can be used toward completion of an additional business concentration as outlined below: |  |  |
| Concentration in Accounting |  |  |
| ACCOUNTING REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |
| ACCOUNTING ELECTIVE COURSES |  |  |
| Complete two courses from the following list: |  |  |
| ACCT 3403 | Accounting Information Systems | 4 SH |
| ACCT 3416 | Strategic Cost Analysis for Decision Making | 4 SH |
| ACCT 4412 | Auditing and Other Assurance Services | 4 SH |
| ACCT 4414 | Income Tax Determination and Planning | 4 SH |
| Concentration in Entrepreneurship and Innovation |  |  |
| Complete the following four courses: |  |  |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail Creation | 4 SH |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad 4$ SH
FINA 3303 Investments 4 SH
FINANCE ELECTIVE COURSES
Complete two additional FINA courses.
Concentration in Management
MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH

MKTG 3401 Marketing Research 4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.
Concentration in Supply Chain Management
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain <br> $\quad 4$ SH |  |
|  | Management |  |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## MARKETING

www.cba.neu.edu/undergrad

Office: 202 Hayden Hall
Phone: 617.373.3260
Fax: 617.373.8366
E-mail contact: ugbs@neu.edu

Abusiness not only designs and manufactures products, but also markets and sells them to manufacturers, wholesalers, retailers, and consumers. All the activities that direct the flow of goods and services from producer to consumer are classified as marketing concerns. Once an organization determines a customer's needs and wants, its first objective is to produce goods or services to satisfy that particular customer. Essential in all types of businesses are product design, research, pricing, packaging, transportation, distribution channel, marketing communications (e.g., advertising), selling, and service strategies.

The concentration in marketing is designed to familiarize students with the marketing process and to provide them with the theoretical concepts, skills, and tools necessary to enter and advance successfully in one of the many possible career paths. Students are shown how to evaluate consumer behavior, employ marketing communication principles (including traditional advertising as well as digital marketing), develop and utilize market research and testing, and develop ways to position products and services strategically. They also are exposed to the changing economic, political, legal, ethical, and cultural contexts in which marketing strategies must be developed.

Students may select courses that lead to one of many career paths within marketing: product or brand management, marketing research, advertising management, retail management, sales management, or international marketing management.

## BSBA-Bachelor of Science in Business Administration with Concentration in Marketing BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list: MATH 1231 Calculus for Business and Economics

$$
4 \mathrm{SH}
$$

MATH 1241 Calculus 14 SH
MATH $1242 \quad$ Calculus 2 SH
MATH $1251 \quad$ Calculus and Differential Equations 4 SH for Biology 1
MATH $1252 \quad$ Calculus and Differential Equations 4 SH for Biology 2
MATH $1340 \quad$ Intensive Calculus for Engineers 6 SH
MATH 1341 Calculus 1 for Science and 4 SH Engineering
MATH 1342 Calculus 2 for Science and Engineering

## Statistics

Complete the following course:
MGSC 1201 Business Statistics
4 SH
Macro- and Microeconomics
Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |

## Finance

Complete the following course:
FINA $2201 \quad$ Financial Management 4 SH
International Business/Social Responsibility
Complete the following course:
INTB 1203 International Business and Global 4 SH Social Responsibility

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems 4 SH

## Marketing

Complete the following course:
MKTG 2201 Introduction to Marketing 4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC 3401 Operations Management
Organizational Behavior
Complete the following course:
ORGB $3201 \quad$ Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:
STRT 4501 Strategy in Action
4 SH

## CONCENTRATION IN MARKETING

Marketing Required Courses
Complete the following two courses:
MKTG 3301 Marketing Management 4 SH
MKTG 3401 Marketing Research 4 SH

## Marketing Elective Courses

Complete two additional MKTG courses.

## ELECTIVES/SECOND BUSINESS CONCENTRATION

Complete eight elective courses. Four electives can be used toward completion of an additional business concentration as outlined below:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

## ACCOUNTING ELECTIVE COURSES

| Complete two courses from the following list: |  |  |
| :---: | :---: | :---: |
| ACCT 3403 | Accounting Information Systems | 4 SH |
| ACCT 3416 | Strategic Cost Analysis for Decision Making | 4 SH |
| ACCT 4412 | Auditing and Other Assurance Services | 4 SH |
| ACCT 4414 | Income Tax Determination and Planning | 4 SH |
| Concentration in Entrepreneurship and Innovation |  |  |
| Complete the following four courses: |  |  |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail Creation | 4 SH |

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad$ Corporate Finance 4 SH
FINA 3303 Investments 4 SH

## FINANCE ELECTIVE COURSES

Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT $3303 \quad$ Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.

## Concentration in Management Information Systems

MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:
MISM $3403 \quad$ Data Management and Information
Analysis
MISM $3404 \quad$ Business Data Communications 4 SH
MISM $4501 \quad$ Business Systems Integration 4 SH
MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the
following list:
ACCT 3403 Accounting Information Systems 4 SH
MKTG 4508 Electronic Marketing 4 SH
SCHM $2201 \quad$ Supply Chain Management 4 SH

## Concentration in Supply Chain Management

Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
128 total semester hours required
Minimum 2.000 GPA required

## SUPPLY CHAIN MANAGEMENT

www.cba.neu.edu/undergrad

Office: 214 Hayden Hall
Phone: 617.373.3132
Fax: 617.373.3166
E-mail contact: Leslie Thomas, Department Secretary, les.thomas@neu.edu

FFrom the Fortune 500 manufacturer to the small firm that produces, sells, or distributes products, all such companies have a supply chain management function that must be effectively managed if they are to be competitive. A supply chain manager is typically involved in making critical decisions about such matters as the modes of transportation used to move the company's materials and products, inventory policies, warehousing needs, customer service standards, and the location of facilities.

As companies become increasingly involved in global markets as both buyers and sellers, supply chain managers play a major role not only in assessing the feasibility of international activity, but also in developing supply and distribution networks to support that involvement. The policies that these managers help formulate are major determinants of a company's success in the international arena.

The academic work of the program flows from introductory courses that address the decisions outlined above through advanced study of the formulation of supply chain strategies. The program culminates in a senior seminar that not only introduces the students to industry leaders in the field, but also focuses on development of individual research and presentation skills.

Because supply chain managers frequently interact with those involved in other areas of management, many supply chain management students have chosen to complete a second concentration in such areas as marketing, finance, or international business.

In addition to finding career opportunities with manufacturers, retailers, and distributors, supply chain management students may find similar opportunities with companies that sell supply chain services or transportation services in the marketplace. Consulting firms and government agencies at the federal, state, and local levels provide other career options.

## BSBA-Bachelor of Science in Business Administration with Concentration in Supply Chain Management

## BUSINESS CORE REQUIREMENTS

## Mathematics

Complete one calculus course from the following list:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1241 | Calculus 1 | 4 SH |
| MATH 1242 | Calculus 2 | 4 SH |
| MATH 1251 | Calculus and Differential Equations <br> for Biology 1 | 4 SH |
| MATH 1252 | Calculus and Differential Equations <br> for Biology 2 | 4 SH |
| MATH 1340 | Intensive Calculus for Engineers <br> MATH 1341 | Calculus 1 for Science and <br> Engineering |
| MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
|  | SH |  |
|  |  |  |

## Statistics

Complete the following course:
MGSC $1201 \quad$ Business Statistics

## Macro- and Microeconomics

Complete the following two courses:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON 1116 Principles of Microeconomics 4 SH

## BUSINESS REQUIREMENTS

## Accounting

Complete the following two courses
ACCT $1201 \quad$ Financial Accounting and Reporting 4 SH
ACCT 2301 Managerial Accounting 4 SH

## Finance

Complete the following course:
FINA 2201 Financial Management 4 SH

## International Business/Social Responsibility

Complete the following course:
INTB 1203 International Business and Global Social Responsibility

## Management Information Systems

Complete the following course:
MISM 2301 Management Information Systems 4 SH
Marketing
Complete the following course:
MKTG 2201 Introduction to Marketing
4 SH
Operations Management and Supply Chain Management
Complete the following course:
MGSC $3401 \quad$ Operations Management 4 SH
Organizational Behavior
Complete the following course:
ORGB $3201 \quad$ Organizational Behavior 4 SH

## Strategy in Action

Complete the following course:
STRT $4501 \quad$ Strategy in Action 4 SH
CONCENTRATION IN SUPPLY CHAIN
MANAGEMENT
Complete the following four courses:

| SCHM 2201 | Supply Chain Management | 4 SH |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## ELECTIVES/SECOND BUSINESS CONCENTRATION

Complete eight elective courses. Four electives can be used
toward completion of an additional business concentration as outlined below:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:
ACCT $3401 \quad$ Financial Reporting and Analysis $1 \quad 4$ SH

ACCT $4501 \quad$ Financial Reporting and Analysis 24 SH
ACCOUNTING ELECTIVE COURSES
Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems <br> ACCT 3416 | 4 SH <br> Strategic Cost Analysis for Decision <br> Making |
| :--- | :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance <br> Services | 4 SH |
| ACCT 4414 | Income Tax Determination and <br> Planning | 4 SH |

Concentration in Entrepreneurship and Innovation

| Complete the following four courses: |  |  |
| :--- | :---: | ---: |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and <br> Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, <br> Operations, and Growth | 4 SH |


| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |
| :---: | :---: | :---: |
| or ENTR 4503 | Small Business Service and Retail Creation | 4 SH |
| Concentration in Finance |  |  |
| FINANCE REQUIRED COURSES |  |  |
| Complete the following two courses: |  |  |
| FINA 3301 | Corporate Finance | 4 SH |
| FINA 3303 | Investments | 4 SH |

FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT 3303 Building Your Management Skills

## MANAGEMENT ELECTIVE COURSES

Complete three additional MGMT courses.

## Concentration in Management Information Systems

MANAGEMENT INFORMATION SYSTEMS REQUIRED COURSES
Complete the following three courses:
MISM $3403 \quad$ Data Management and Information 4 SH Analysis
MISM $3404 \quad$ Business Data Communications 4 SH
MISM $4501 \quad$ Business Systems Integration 4 SH
MANAGEMENT INFORMATION SYSTEMS ELECTIVE COURSE
Complete one additional MISM course or one course from the following list:
ACCT 3403
MKTG 4508
SCHM 2201
Accounting Information Systems
4 SH

Supply Chain Management

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:
MKTG $3301 \quad 4$ SH
MKTG 3401 Marketing Research
4 SH
MARKETING ELECTIVE COURSES
Complete two additional MKTG courses.

## BUSINESS GPA REQUIREMENT

A minimum 2.000 GPA in business courses is required.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

128 total semester hours required
Minimum 2.000 GPA required

SCHOOL OF TECHNOLOGICAL ENTREPRENEURSHIP
www.ste.neu.edu

Paul M. Zavracky, PhD
Professor and Dean

Office: 101 Stearns Center
Phone: 617.373.2788
Fax: 617.373.7490
E-mail contact: Margarita Alicea-Saez, Administrative Operations
Manager, M.Alicea-Saez@neu.edu

Inn the spring of 2004, the School of Technological Entrepreneurship (STE) was approved by the Northeastern University Board of Trustees. Commencing with the 2004-2005 academic year, STE began offering an undergraduate minor and elective courses for full-time undergraduate students.

History has demonstrated that successful technological entrepreneurs possess a combination of skills that include a unique style of leadership, a desire to create enterprises, and a strong internal drive to pursue ideas they know will change the world. The scientists and engineers among this dynamic group often developed an understanding of basic business practices on the job; while their colleagues from business administration similarly developed an understanding of the unique character of technologybased ventures. Now, undergraduate students interested in becoming technological entrepreneurs have the opportunity to acquire skills in a more formal program. Students intrigued with the possibilities and who possess a passion for learning and a very strong desire to succeed should consider the minor offered by the STE.

The process needed to establish technology-based ventures differs from that of nontechnical businesses. It typically begins with an advancement in science and engineering that could lead to a technology-based product or process. Obtaining patents and copyrights to protect a company's products and processes is especially important. Equally important is the careful and strategic disclosure of intellectual property while forming key relationships with other, often larger companies. Crude prototypes or demonstration vehicles are often created to demonstrate the potential of a new idea. At this point, young technological entrepreneurs learn that they need to uncover a compelling use for their new invention in order to find market success. Markets don't always exist for truly new technologies and therefore must be created, making the commercialization process long and difficult. The technological entrepreneur has to probe different applications
to find those that provide fertile ground for sales growth and ultimately for commercial and corporate success.

From an academic perspective, the field of technological entrepreneurship is at the intersection of science and engineering and business administration. The STE was established to develop educational programs that provide potential entrepreneurs with an opportunity to study the unique aspects of product development, marketing, and business practices that are associated with technology-based ventures. The school provides a new learning environment in which science, engineering, and business students are introduced to the unique aspects associated with the commercialization of technology-based products.

A hallmark of STE is interdisciplinary instruction and a focus on creative practices. A major highlight of the school is faculty collaboration and team teaching. Faculty from engineering and science bring to the school precise knowledge in many technical areas, experience with the product life cycle, and an understanding of the complexities associated with advanced technologies. The business faculty bring a working knowledge of marketing, finance, accounting, and project management. It is the integration of these two areas that defines technological entrepreneurship, and it is achieving this integration that makes STE classes exciting and rewarding for students.

## Minor in Technological Entrepreneurship

## INTRODUCTORY COURSE

Complete one of the following courses. Engineering and science students should take TECE 2310. Business students should take TECE 2330:
TECE 2310
Business Basics for Technological 4 SH Entrepreneurship
TECE 2330
Introduction to Product Design for Entrepreneurs

## REQUIRED COURSES

Complete the following three courses:
TECE 2301
Opportunity Assessment in a
Technology-Based Firm
TECE 3401
Managing Operations in a 4 SH Technology-Based Start-Up Firm
TECE 3450
Strategic Entrepreneurship 4 SH

GPA REQUIREMENT
2.000 GPA required in the minor

# College of Computer and Information Science 

# www.ccs.neu.edu/undergraduate 

Larry A. Finkelstein, PhD, Professor and Dean

Agnes H. Chan, PhD, Professor, Associate Dean, and Director of Graduate Studies
Richard A. Rasala, PhD, Professor, Associate Dean, and Director of Undergraduate Studies
Doreen L. Hodgkin, MEd, Director, Administrative, Financial, and Student Services

Office: 202 West Village H
Phone: 617.373.2462
Fax: 617.373.5121
E-mail contact: adv@ccs.neu.edu

The invention of powerful computers and the development of complex software programs have fundamentally transformed the way people work and live. Computers are now essential tools in business, industry, science, medicine, and human services. Computers also enhance the efforts of individuals and volunteer groups to meet their goals. In addition, the most sophisticated work in music, film, and video often makes use of computer technology. The College of Computer and Information Science believes that computing is one of the most exciting fields of study and that its applications are limitless.

The college offers undergraduate degree programs in computer science (BS and BA) and information science (BS) and dual majors with business administration, cognitive psychology, biology, mathematics, physics, environmental science, digital art, multimedia studies, and music technology, as well as a dual major in computer science and information science. The BS in computer science emphasizes strong technical competence in computer science, mathematics, science, and electrical engineering while the BA in computer science combines computer science with a broadbased liberal arts education. The BS in information science integrates studies in computer science, information science, business, psychology, and social science. Each of the dual majors offers the opportunity for intense study in two disciplines. The BS in computer science follows the ACM-IEEE Curriculum 2001 recommendations and is accredited by the Computing Accreditation Commission of ABET.

## Academic Progression Standards

The following are the minimum requirements for freshmen to achieve sophomore status.

- At least 25 SH of credit
- A minimum overall GPA of 1.800
- A minimum computer science GPA of 1.800
- Successful completion of the following required courses:
- CS 1800 and CS 2500 , each with a grade of at least C-
- ENGL 1111 or equivalent ENGL 1102
- An arts and sciences core course

The minimum overall GPA values required for students to advance to the next rank and to graduate are:

| Middler | 2.000 |
| :--- | :--- |
| Junior | 2.000 |
| Senior | 2.000 |
| To graduate | 2.000 |

In addition, students must achieve a minimum overall GPA of 2.000 and a minimum overall GPA in CS/IS courses of 2.000 for graduation.

## Program Length

Normally, the undergraduate program is five years, with seven full academic semesters and two to three six-month periods of cooperative education. Some students may complete the program in four years with a reduced cooperative education component. The college is strongly committed to the cooperative education program since it believes that the opportunity to integrate academic learning with practical experience in industry can greatly contribute to a student's personal and professional development.

## COMPUTER SCIENCE

Computer science involves the application of theoretical concepts in the context of software development to the solution of problems that arise in almost every human endeavor. Computer science as a discipline draws its inspiration from mathematics, logic, science, and engineering. From these roots, computer science has fashioned paradigms for program structures, algorithms, data representations, efficient use of computational resources, robustness and security, and communication within computers and across networks. The ability to frame problems, select computational models, design program structures, and develop efficient algorithms is as important in computer science as software implementation skill. Computer science is concerned with bringing together all of the intellectual resources needed to enable the rapid and effective development of software to meet the needs of business, research, and end users.

## The goal of the undergraduate program in computer science

 is to teach students the conceptual and practical skills that will enable them to contribute to the development of computational principles and to play a productive role in the software community. To that end, the undergraduate program focuses on the fundamentals of program design including object-oriented design, software development, computer organization, systems and networks, theory of computation, principles of languages, and advanced algorithms and data. The program also offers a variety of electives at the upper undergraduate and beginning graduate levels ranging from more theoretical courses to those that focus on important applications.
## BSCS—Bachelor of Science in Computer Science

## COMPUTER SCIENCE MAJOR REQUIREMENTS

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science <br> Overview 1 <br> Computer/Information Science <br> Overview 2 | 1 SH |
| :--- | :---: | :---: |
| CS 1210 SH |  |  |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op <br> Preparation | 1 SH |

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C- or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following seven courses:

| CS 2600 | Computer Organization | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3600 | Systems and Networks | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4400 | Programming Languages | 4 SH |
| CS 4500 | Software Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS $4000 \quad$ Senior Seminar 1 SH

## Computer Science Capstone

Complete one of the following courses (thus satisfying the NU
Core capstone requirement):

| CS 4100 | Artificial Intelligence | 4 SH |
| :--- | :--- | :--- |
| CS 4300 | Computer Graphics | 4 SH |


| CS 4550 | Web Development | 4 SH |
| :--- | :--- | :--- |
| CS 4900 | Honors Senior Seminar | 4 SH |

## Computer Science Upper-Division Electives

Complete two upper-division computer science courses. With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as upper-division electives.
CS 2990 to CS 4993

| IS 4200 | Information Retrieval | 4 SH |
| :--- | :--- | :--- |
| IS 4300 | Human Computer Interaction | 4 SH |

## ADDITIONAL COURSES FOR BS

## Mathematics Courses

Complete the following four courses. A grade of C - or higher is required in MATH 1341 and MATH 1342:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
Linear Algebra 4 SH
MATH $2331 \quad 4$ SH

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## Science Requirement

Complete two courses with corresponding labs and recitations for one of the following sciences:

## BIOLOGY

Complete the following course with corresponding lab:

| BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |

and complete a second course with corresponding lab from the
following list:
BIOL 1113 General Biology 24 SH
with BIOL 1114 Lab for BIOL 11131 SH
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL $2301 \quad 1 \mathrm{SH}$

## CHEMISTRY

Complete the following two courses with corresponding labs:
CHEM $1211 \quad$ General Chemistry 1 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH
GEOLOGY/ENVIRONMENTAL SCIENCE (OPTION 1)
Complete the following two courses with corresponding labs:
ENVR $1200 \quad$ Dynamic Earth 4 SH
with ENVR 1201 Lab for ENVR 12001 SH
ENVR $1202 \quad$ History of Earth and Life 4 SH
with ENVR 1203 Interpreting Earth History 1 SH
GEOLOGY/ENVIRONMENTAL SCIENCE (OPTION 2)
Complete the following course with corresponding lab:
ENVR $1200 \quad$ Dynamic Earth 4 SH
with ENVR 1201 Lab for ENVR 12001 SH
and complete an additional course with corresponding lab from the following list:

| ENVR 2310 | Earth Materials | 4 SH |
| :--- | :--- | :--- |
| with ENVR 2311 | Lab for ENVR 2310 | 1 SH |
| ENVR 2340 | Earth Landforms and Processes | 4 SH |
| with ENVR 2341 | Lab for ENVR 2340 | 1 SH |
| ENVR 4106 | Coastal Processes | 4 SH |
| with ENVR 4107 | Lab for ENVR 4106 | 1 SH |
| ENVR 4500 | Applied Hydrogeology | 4 SH |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH |
| ENVR 5244 | Sedimentation | 4 SH |
| with ENVR 5245 | Lab for ENVR 5244 | 1 SH |
| ENVR 5260 | Geographical Information Systems | 4 SH |
| with ENVR 3301 | Lab for ENVR 3300 | 1 SH |
| GEOLOGY/ENVIRONMENTAL SCIENCE (OPTION 3) |  |  |
| Complete the following two courses with corresponding labs: |  |  |

ENVR $1202 \quad$ History of Earth and Life 4 SH
with ENVR 1203 Interpreting Earth History 1 SH
ENVR 5242 Ancient Marine Life 4 SH
with ENVR 5243 Lab for ENVR 52421 SH

## PHYSICS

Complete one of the following sequences of courses:
SEQUENCE A

| PHYS 1161 | Physics 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| PHYS 1165 | Physics 2 | 4 SH |
| with PHYS 1166 | Lab for PHYS 1165 | 1 SH |
| SEQUENCE B |  |  |
| PHYS 1145 | Physics for Life Sciences 1 | 4 SH |
| with PHYS 1146 | Lab for PHYS 1145 | 1 SH |
| PHYS 1147 | Physics for Life Sciences 2 | 4 SH |
| with PHYS 1148 | Lab for PHYS 1147 | 1 SH |
| SEQUENCE C |  |  |
| PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## Electrical Engineering

Complete the following course:
EECE $3230 \quad$ Computer Architecture for Computer 4 SH

## ELECTIVES OUTSIDE COMPUTER AND INFORMATION SCIENCE <br> Depth or Breadth Elective Requirement <br> Complete three courses from either the depth option or the breadth option.

DEPTH
Complete three courses in one department outside computer science and information science. Note: For the purposes of this requirement, all business courses are considered to be in a single department.

## BREADTH

Complete three courses in arts, humanities, or social sciences.

## Remaining Electives

Complete 20 semester hours of elective course work. Two of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement and the NU Core social science level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## COMPUTER SCIENCE CREDIT REQUIREMENT

Complete 60 semester hours in the major. Acceptable courses for this requirement include all CS courses and any courses from the following list:

| IS 4200 | Information Retrieval | 4 SH |
| :--- | :--- | :--- |
| IS 4300 | Human Computer Interaction | 4 SH |
| MATH 2310 | Discrete Mathematics | 4 SH |
|  |  |  |
| NU CORE |  |  |
| REQ QUIREMENTS |  |  |

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
135 total semester hours required
Minimum 2.000 GPA required

## BACS-Bachelor of Arts in Computer Science

## COMPUTER SCIENCE MAJOR REQUIREMENTS

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS $1200 \quad$ Computer/Information Science $\quad 1$ SH Overview 1
CS $1210 \quad$ Computer/Information Science $\quad 1 \mathrm{SH}$ Overview 2
Upper-level transfer students complete the following course:

## Computer Science Fundamental Courses

Complete the following four courses, with corresponding labs, as indicated. A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following six courses:

| CS 2600 | Computer Organization | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3600 | Systems and Networks | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |

Computer Science Senior Seminar
Complete the following course:
CS 4000 Senior Seminar

## Computer Science Capstone

Complete one of the following courses (thus satisfying the NU
Core capstone requirement):

| CS 4100 | Artificial Intelligence | 4 SH |
| :--- | :--- | :--- |
| CS 4300 | Computer Graphics | 4 SH |
| CS 4550 | Web Development | 4 SH |
| CS 4900 | Honors Senior Seminar | 4 SH |

## ADDITIONAL COURSES FOR BA

## Mathematics Courses

Complete the following courses. A grade of C - or higher is required in MATH 1341:

| MATH 1341 | Calculus 1 for Science and | 4 SH |
| :--- | :--- | :--- |
| MATH 1342 | Engineering <br> Calculus 2 for Science and <br> Engineering | 4 SH |
| MATH 3081 | Probability and Statistics | 4 SH |

## Science Courses

Complete one course with corresponding lab and recitation for one of the following groups:
BIOLOGY
BIOL 1111

with BIOL 1112 $\quad$| General Biology 1 |
| :--- | :--- | :--- |
| Cab for BIOL 1111 |$\quad 4 \mathrm{SH}$

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## UPPER-DIVISION ELECTIVE

Computer Science or Mathematics Upper-Division Elective
Complete one upper-division course in computer science, information science, or mathematics. With advisor approval, a directed study, project study, or an appropriate graduate-level course may also be taken as a computer science elective.
CS 2990 to CS 4993

| IS 4200 | Information Retrieval | 4 SH |
| :--- | :--- | :--- |
| IS 4300 | Human Computer Interaction | 4 SH |

MATH 2230 to MATH 4581

## REQUIRED GENERAL ELECTIVES

Complete ten general electives. One of these electives must be used to satisfy the NU Core social science level 1 requirement. One of the electives must be an arts course from the NU Core arts/humanities level 1 domain, and one must be a humanities course from the NU Core arts/humanities level 1 domain. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives. Note: For this requirement, an arts course is defined to be any course in the NU Core arts/humanities level 1 domain with one of the following subject codes: ARCH, ARTD, ARTE, ARTF, ARTG, ARTH, ARTS, MUSC, MUSI, MUST, or THTR. A humanities course is defined to be any course in the NU Core arts/humanities level 1 domain that is not an arts course.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## COLLEGE REQUIREMENTS FOR BA

Complete the College of Arts and Sciences college requirements for the BA degree, including the three required foreign language courses. See page 41 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
134 total semester hours required
Minimum 2.000 GPA required

## BS/MS in Computer Science

Undergraduate students apply to the combined program through the graduate school. Once admitted, students may count a limited amount of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Minor in Computer Science

The requirements for the minor in computer science are shown below. Students who wish to take a particular course must have taken its prerequisites listed in the catalog. Note: Electrical and computer engineering students should contact the College of Computer and Information Science about course substitutions that ease completion of the minor in computer science.

## REQUIRED COURSES

Complete the following two courses with corresponding labs. A grade of C - or higher is required:
CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS $2501 \quad$ Lab for CS $2500 \quad 1$ SH
CS 2510
Fundamentals of Computer Science 2
4 SH
with CS 2511
Lab for CS 2510

## COMPUTER SCIENCE ELECTIVES

Complete three courses from the following list:
CS 2000 to CS 4989
IS $4200 \quad$ Information Retrieval 4 SH
IS 4300 Human Computer Interaction

$$
4 \mathrm{SH}
$$

## GPA REQUIREMENT

2.000 GPA required in the minor

## INFORMATION SCIENCE

Making the most of information technology-ensuring that it serves the goals and needs of users, clients, and society-is a tremendous challenge, one that requires a unique blend of knowledge and skills. The field of information science (IS) focuses on the relationship between computers, the people who use them, and the contexts in which they operate. IS seeks to further our understanding of: (1) information itself: where it comes from, how it is organized, and how it is used; (2) the design of computer applications that are usable, socially acceptable, and achieve the goals for which they were created; (3) the impact of information technology (IT) on human life and work; and (4) how the nature of the information, the goals of the users, and the relevant social policies and laws both influence and are influenced by the technical aspects of computer systems.

Information science majors have an opportunity to acquire a strong technical foundation by taking classes in mathematics, logic, and computer science and to acquire a strong foundation in behavioral science by taking classes in cognitive psychology, economics, and statistics. A course in the principles of information science introduces students to important intellectual frameworks such as decision theory, general systems theory, and social informatics, and to topics of current importance such as digital copyright, trusted systems, and Internet privacy policy. Building on these foundations, the IS core develops expertise in the design, management, and evaluation of information technology-based resources and systems. Elective courses cover topics such as text/hypertext retrieval, artificial intelligence, information security, e-commerce, and data mining.

## BSIS—Bachelor of Science in Information Science

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS 1200
Computer/Information Science
1 SH
Overview 1
CS 1210
Computer/Information Science 1 SH
Overview 2
Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op 1 SH
Preparation

## Computer Science Fundamental Courses

Complete the following four courses, with corresponding labs, as indicated. A grade of C - or higher is required in each course:
CS $1800 \quad$ Discrete Structures 4 SH

CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS $2501 \quad$ Lab for CS $2500 \quad 1$ SH
CS $2510 \quad$ Fundamentals of Computer Science 24 SH
with CS $2511 \quad$ Lab for CS $2510 \quad 1$ SH
CS 2800 Logic and Computation 4 SH
with CS $2801 \quad$ Lab for CS $2800 \quad 1$ SH
Computer Science Required Courses
Complete the following four courses:
CS $2600 \quad$ Computer Organization 4 SH
CS 3200 Database Design 4 SH
CS $3500 \quad$ Object-Oriented Design 4 SH
CS $3600 \quad$ Systems and Networks 4 SH

## INFORMATION SCIENCE COURSES

Required Courses in Information Science
Complete the following five courses:

| IS 2000 | Principles of Information Science <br> Information System Design and <br> IS 3500 | 4 SH |
| :--- | :--- | :--- |
|  | Development |  |
| IS 4300 | Human Computer Interaction | 4 SH |
| IS 4800 | Empirical Research Methods | 4 SH |
| IS 4900 | Information Science Senior Project | 5 SH |

## Managing Information

Complete the following course:
MISM 3305 Information Resource Management 4 SH

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH
Information Science Electives
Complete two courses from the following list:
IS 2990 to IS 4993
CS 2600 Computer Organization
4 SH
CS 3200 to CS 4993
ACCT $1209 \quad$ Financial Accounting and Reporting 4 SH
ACCT 3403 Accounting Information Systems 4 SH
COMM $1231 \quad$ Principles of Organizational 4 SH

| COMM 2531 | Application of Organizational Communication | 4 SH |
| :---: | :---: | :---: |
| COMM 3532 | Theories of Conflict and Negotiation | 4 SH |
| ECON 3560 | Applied Econometrics | 4 SH |
| LING 3450 | Syntax | 4 SH |
| LING 3452 | Semantics | 4 SH |
| MISM 3408 | Knowledge Management | 4 SH |
| MISM 4501 | Business Systems Integration | 4 SH |
| MISM 4512 | Special Topics in Information Technology Management | 4 SH |
| POLS 2390 | Science, Technology, and Public Policy | 4 SH |
| PSYC 3450 | Learning and Motivation | 4 SH |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3458 | Psychobiology | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 4520 | Language and the Brain | 4 SH |
| PSYC 4604 | Laboratory in Learning and Motivation | 4 SH |
| PSYC 4606 | Laboratory in Psychobiology | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4622 | Laboratory in Sensation and Perception | 4 SH |
| MATHEMATICS REQUIREMENTS |  |  |
| Calculus |  |  |
| Complete the following course with a grade of C- or higher: |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| or MATH 1340 | Intensive Calculus for Engineers | 6 SH |
| Statistics |  |  |
| Complete the following course: |  |  |
| ECON 2350 | Statistics | 4 SH |
| BEHAVIORAL SCIENCE FOUNDATIONS |  |  |
| Economics |  |  |
| Complete the following course: |  |  |
| ECON 1116 | Principles of Microeconomics | 4 SH |
| Psychology |  |  |
| Complete the following two courses: |  |  |
| PSYC 1101 | Foundations of Psychology | 4 SH |
| PSYC 3466 | Cognition | 4 SH |
| Organizational Behavior |  |  |
| Complete the following course: |  |  |
| ORGB 3209 | Organizational Behavior | 4 SH |
| REQUIRED GENERAL ELECTIVES |  |  |
| Science Electives |  |  |
| One general elective must be a science course chosen from the NU Core science/technology level 1 domain. This course may not be a technology course. Corresponding lab must be taken with lecture |  |  |

where applicable. Note: For this requirement, a science course is defined to be any course in the NU Core science/technology level 1 domain that is not in the College of Computer and Information Science or in the College of Engineering.

## Additional General Electives

Complete six additional general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## INFORMATION SCIENCE MAJOR CREDIT

 REQUIREMENTComplete 73 semester hours in CS and IS for the major.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

133 total semester hours required
Minimum 2.000 GPA required

## Minor in Information Science

The requirements for the minor in information science are shown below. Students who wish to take a particular course must have taken its prerequisites listed in the catalog.

## REQUIRED COURSES

Complete the following three courses with corresponding labs, where indicated. A grade of C- or higher is required in CS 2500 and CS 2510:
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 4$ SH
with CS $2501 \quad$ Lab for CS 25001 SH
CS $2510 \quad$ Fundamentals of Computer Science 24 SH
with CS 2511 Lab for CS 25101 SH
IS $2000 \quad$ Principles of Information Science 4 SH
INFORMATION SCIENCE ELECTIVES
Complete two courses from the following list:
CS 3200 Database Design 4 SH
IS 2000 to IS 4989
GPA REQUIREMENT
2.000 GPA required in the minor


#### Abstract

DUAL MAJORS The college offers dual majors with business administration, cognitive psychology, biology, mathematics, physics, environmental science, digital art, multimedia studies, and music technology, as well as a dual major in computer science and information science. Each of the dual majors offers the opportunity for intense study in two disciplines with appropriate breadth in the liberal arts. Students take eight to twelve courses in each discipline and two or three integrative courses that bind the disciplines together. These programs offer an excellent educational opportunity for the ambitious student.


## BS in Computer Science and Information Science

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science <br> Overview 1 |
| :---: | :---: |
| CS 1210 | Computer/Information Science <br> Overview 2 |

Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op $\quad 1$ SH Preparation

## Computer Science Fundamental Courses

Complete the following four courses, with corresponding labs, as indicated. A grade of C - or higher is required in each course:
CS 1800 Discrete Structures 4 SH

CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS 2501 Lab for CS 25001 SH
CS 2510 Fundamentals of Computer Science 24 SH
with CS $2511 \quad$ Lab for CS $2510 \quad 1$ SH
CS 2800
with CS 2801 Lab for CS 2800

## Computer Science Required Courses

Complete the following eight courses:

| CS 2600 | Computer Organization | 4 SH |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 SH |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3600 | Systems and Networks | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4400 | Programming Languages | 4 SH |
| CS 4500 | Software Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |

## INFORMATION SCIENCE COURSES

Required Courses in Information Science
Complete the following five courses:

| IS 2000 | Principles of Information Science | 4 SH |
| :--- | :--- | :--- |
| IS 3500 | Information System Design and | 4 SH |
|  | Development |  |

es
4 SH

| IS 4300 | Human Computer Interaction | 4 SH |
| :--- | :--- | :--- |
| IS 4800 | Empirical Research Methods | 4 SH |

IS 4900
Information Science Senior Project
5 SH
Sociology
Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## Managing Information

Complete the following course:
MISM 3305 Information Resource Management 4 SH

## BEHAVIORAL SCIENCE FOUNDATIONS

## Economics

Complete the following course:
ECON $1116 \quad$ Principles of Microeconomics 4 SH

## Psychology

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH
Organizational Behavior
Complete the following course:
ORGB $3209 \quad$ Organizational Behavior 4 SH

## MATHEMATICS AND STATISTICS REQUIREMENTS

## Calculus

Complete the following two courses with a grade of C - or higher in MATH 1341:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH
MATH $2331 \quad$ Linear Algebra 4 SH

## Statistics

Complete the following course:
ECON 2350 Statistics
4 SH

## REQUIRED GENERAL ELECTIVES

## Science Elective

One general elective must be a science course chosen from the NU Core science/technology level 1 domain. This course may not be a technology course. Corresponding lab must be taken with lecture where applicable. Note: For this requirement, a science course is defined to be any course in the NU Core science/technology level 1 domain that is not in the College of Computer and Information Science or in the College of Engineering.

## Additional General Electives

Complete four additional general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

132 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Biology

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete one of the following sets of courses:

| CS 1200 | Computer/Information Science Overview 1 | 1 SH |
| :---: | :---: | :---: |
| with CS 1210 | Computer/Information Science Overview 2 | 1 SH |
| or BIOL 1000 | Biology/Biochemistry at Northeastern |  |
| with BIOL 1106 | Introduction to Experiential Education |  |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| Complete the following four courses with a grade of C- or higher: |  |  |
| CS 1800 | Discrete Structures |  |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| with CS 2501 | Lab for CS 2500 |  |
| CS 2510 | Fundamentals of Computer Science 2 |  |
| with CS 2511 | Lab for CS 2510 |  |
| CS 2800 | Logic and Computation |  |
| with CS 2801 | Lab for CS 2800 |  |

## Computer Science Required Courses

Complete the following three courses:

| CS 3200 | Database Design | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 4500 | Software Development | 4 SH |

## Senior Seminar

Complete the following course:
CS 4000 Senior Seminar

## Computer Science Integrative Courses

Complete the following two courses:

| CS 3800 | Theory of Computation | 4 SH |
| :--- | :--- | :--- |
| CS 4800 | Algorithms and Data | 4 SH |

## BIOLOGY COURSES

## Required Biology

Complete one course with corresponding lab for Biology 1, Biology 2, and Genetics and Molecular Biology:

BIOLOGY 1
BIOL $1101 \quad$ Principles of Biology $1 \quad 4 \mathrm{SH}$
with BIOL 1102 Lab for BIOL 11011 SH
BIOL $1111 \quad$ General Biology 14 SH
with BIOL 1112 Lab for BIOL 11111 SH
BIOLOGY 2
BIOL $1103 \quad$ Principles of Biology 2 SH
with BIOL 1104 Lab for BIOL 11031 SH
BIOL $1113 \quad$ General Biology 2 SH
with BIOL 1114 Lab for BIOL 11131 SH
GENETICS AND MOLECULAR BIOLOGY
BIOL $2301 \quad$ Genetics and Molecular Biology 4 SH
with BIOL 2302 Lab for BIOL 23011 SH

## Biology Capstone

Complete the following course:
BIOL $4701 \quad$ Biology Capstone 4 SH
Biology Integrative Course
Complete one of the following courses with corresponding lab, as indicated:
BIOL $5521 \quad$ Experimental Design Marine Ecology 4 SH
with BIOL 5522 Lab for BIOL 55211 SH
BIOL $6308 \quad$ Bio IT Methods $1 —$ Genome and 4 SH Proteome Analysis
BIOL $6309 \quad$ Bio IT Methods 2—Protein Structure 4 SH and Systems

## Intermediate and Advanced Biology Electives

Complete two biology courses (with labs, if offered, 9-10 semester hours total) at level 2311 or above. One course (with corresponding lab, 5 semester hours total) must be from the following list:
BIOL 2311 Ecology 4 SH
with BIOL 2312 Lab for BIOL $2311 \quad 1 \mathrm{SH}$
BIOL 2313 Plant Biology 4 SH
with BIOL 2314 Lab for BIOL 23131 SH
BIOL 2315 Invertebrate Zoology 4 SH
with BIOL 2316 Lab for BIOL 23151 SH
BIOL 2317 Vertebrate Zoology 4 SH
with BIOL 2318 Lab for BIOL $2317 \quad 1 \mathrm{SH}$
BIOL $2319 \quad$ Regulatory Cell Biology 4 SH
with BIOL 2320 Lab for BIOL 23191 SH
BIOL 2321 Microbiology 4 SH
with BIOL 2322 Lab for BIOL $2321 \quad 1 \mathrm{SH}$
BIOL 2323 Biochemistry 4 SH
with BIOL 2324 Lab for BIOL 23231 SH
An additional course (with lab, if offered, 4-5 semester hours
total) must be in the following range:
BIOL 2311 to BIOL 4989

## Chemistry Courses

Complete the following four courses with corresponding labs:
CHEM $1211 \quad$ General Chemistry 1 SH
with CHEM 1212 Lab for CHEM 12111 SH
CHEM 1214 General Chemistry 24 SH
with CHEM 1215 Lab for CHEM 12141 SH

| CHEM 2311 | Organic Chemistry 1 |
| :--- | :--- |
| with CHEM 2312 | Lab for CHEM 2311 |
| CHEM 2313 | Organic Chemistry 2 |
| with CHEM 2314 | Lab for CHEM 2313 |

4 SH
1 SH
4 SH
1 SH
MATHEMATICS REQUIREMENTS
Complete the following two calculus courses with a grade of C- or higher, and complete the probability and statistics course:

## Calculus

MATH $1251 \quad$ Calculus and Differential Equations $\quad 4 \mathrm{SH}$

MATH $1252 \quad$ Calculus and Differential Equations
for Biology 2

## Probability and Statistics

MATH $3081 \quad$ Probability and Statistics 4 SH

## COMPUTERS AND SOCIETY

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete six general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement and one must be used to satisfy the NU Core social science level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

141 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Business Administration

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS 1200

CS $1210 \quad$ Computer/Information Science 1 SH Overview 2

Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op 1 SH
Preparation

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

Computer Science Required Courses
Complete the following six courses:
CS $2600 \quad$ Computer Organization 4 SH

CS 3200 Database Design 4 SH
CS $3500 \quad$ Object-Oriented Design 4 SH
CS $3600 \quad$ Systems and Networks 4 SH
CS 3800 Theory of Computation 4 SH
CS $4500 \quad$ Software Development 4 SH

## Computer Science Senior Seminar

Complete the following course:
CS $4000 \quad$ Senior Seminar 1 SH

## Upper-Division CS/IS Elective

Complete one upper-division CS/IS elective. With advisor approval, a directed study, project study, or appropriate graduatelevel course may also be taken as a computer science elective:
CS 3200 to CS 4993

| IS 4200 | Information Retrieval | 4 SH |
| :--- | :--- | :--- |
| IS 4300 | Human Computer Interaction | 4 SH |

## BUSINESS COURSES

## Required Business Courses

Complete the following seven courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |
| FINA 2201 | Financial Management | 4 SH |
| MGSC 1201 | Business Statistics | 4 SH |
| MKTG 2201 | Introduction to Marketing | 4 SH |
| ORGB 3201 | Organizational Behavior | 4 SH |
| STRT 4501 | Strategy in Action | 4 SH |

## BUSINESS CONCENTRATION

Complete a four-course business concentration from the following list:

## Concentration in Accounting

Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

and two electives from the following list:
ACCT 3403 Accounting Information Systems 4 SH
ACCT $3416 \quad$ Strategic Cost Analysis for Decision 4 SH
Making

| ACCT 4412 | Auditing and Other Assurance Services | 4 SH |
| :---: | :---: | :---: |
| ACCT 4414 | Income Tax Determination and Planning | 4 SH |
| Concentration in Entrepreneurship and Innovation |  |  |
| Complete the following four courses: |  |  |
| ENTR 2201 | The Entrepreneurial Universe | 4 SH |
| ENTR 3301 | Opportunity Assessment and Entrepreneurship Marketing | 4 SH |
| ENTR 3401 | Small Business Management, Operations, and Growth | 4 SH |
| ENTR 4501 | Venture Creation and Entrepreneurial Finance | 4 SH |
| or ENTR 4503 | Small Business Service and Retail Creation | 4 SH |
| Concentration in Finance |  |  |
| Complete the following two courses: |  |  |
| FINA 3301 | Corporate Finance | 4 SH |
| FINA 3303 | Investments | 4 SH |
| and two additio | FINA courses. |  |
| Concentration in Management |  |  |
| Complete the following course: |  |  |
| MGMT 3303 and three additi | Building Your Management Skills MGMT courses. | 4 SH |
| Concentration in Marketing |  |  |
| Complete the following two courses: |  |  |
| MKTG 3301 | Marketing Management | 4 SH |
| MKTG 3401 | Marketing Research | 4 SH |
| and two additio | MKTG courses. |  |
| Concentration in Supply Chain Management |  |  |
| Complete the following four courses: |  |  |
| SCHM 2201 | Supply Chain Management | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain Management | 4 SH |
| INFORMATION RESOURCE MANAGEMENT |  |  |

## Information Resource Management

Complete the following course. Note: MISM 3305 is an integrative course:
MISM 3305 Information Resource Management

## MATHEMATICS AND GENERAL REQUIREMENTS

## Mathematics

Complete one of the following courses:

| MATH 1231 | Calculus for Business and Economics | 4 SH |
| :--- | :--- | :--- |
| MATH 1340 | Intensive Calculus for Engineers | 6 SH |
| MATH 1341 | Calculus 1 for Science and | 4 SH |

## Economics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

REQUIRED GENERAL ELECTIVES—CS/IS AND BUSINESS
Complete three general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives. Note: Computer science/business administration dual majors may satisfy the latter requirement by completing the following course:
INTB 1203 International Business and Global 4 SH Social Responsibility

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
133 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Cognitive Psychology

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS $1200 \quad$ Computer/Information Science $\quad 1$ SH Overview 1
Computer/Information Science 1 SH Overview 2
Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op $\quad 1 \mathrm{SH}$

Preparation

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C- or higher is required in each course:
CS $1800 \quad$ Discrete Structures 4 SH
CS $2500 \quad$ Fundamentals of Computer Science 14 SH
with CS $2501 \quad$ Lab for CS 25001 SH

| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| :--- | :--- | :--- |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| Computer Science |  | Required Courses |
| Complete the following five courses: |  |  |
| CS 3500 | Object-Oriented Design |  |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4100 | Artificial Intelligence | 4 SH |
| CS 4500 | Software Development | 4 SH |
| IS 4300 | Human Computer Interaction | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS 4000 Senior Seminar
1 SH

## Computer Science Elective Courses

Complete two upper-division computer science courses. With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives:
CS 2600 Computer Organization
CS 3200 to CS 4993
IS 4200 Information Retrieval

## PSYCHOLOGY COURSES

## Required Courses

Complete the following four courses:

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## Advanced Psychology

Complete one course from the following list:
PSYC 3452 Sensation and Perception
PSYC $3458 \quad$ Psychobiology
4 SH

## Laboratory in Psychology

Complete one course from the following list:

| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4622 | Laboratory in Sensation and | 4 SH |
|  | Perception |  |

## Seminar in Psychology

Complete one course from the following list:

| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4668 | Seminar in Sensation and Perception | 4 SH |

## Psychology Electives

Complete two courses from the following list: Note: Courses satisfying the categories above cannot be reused:

| PSYC 3402 | Social Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3450 | Learning and Motivation | 4 SH |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3458 | Psychobiology | 4 SH |
| PSYC 3526 | Categorization and Reasoning | 4 SH |


| PSYC 4520 | Language and the Brain | 4 SH |
| :--- | :--- | :--- |
| PSYC 4522 | Psychology of Reading | 4 SH |
| PSYC 4524 | Cognitive Development | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4622 | Laboratory in Sensation and | 4 SH |
|  | $\quad$ Perception |  |
| PSYC 4652 | Seminar in Ethics in Psychology | 4 SH |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4668 | Seminar in Sensation and Perception | 4 SH |
| PSYC 4970 | Junior/Senior Honors Project 1 | 4 SH |
| with PSYC 4971 | Junior/Senior Honors Project 2 | 4 SH |
| ADDITIONAL REQUIREMENTS |  |  |
| Calculus |  |  |
| Complete the following course: |  |  |
| MATH 1341 | Calculus 1 for Science and | 4 SH |
|  | Engineering |  |

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete eight general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
133 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Digital Art

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS 1200

| Computer/Information Science <br> Overview 1 | 1 SH |
| :--- | :--- |
| Computer/Information Science | 1 SH |


| Upper-level transfer students complete the following cours |  |  |
| :---: | :---: | :---: |
| CS 1220 | Computer/Information Science Co-op Preparation |  |
| Computer Science Fundamental Courses |  |  |
| Complete the following four courses with corresponding labs, as indicated. A grade of $\mathrm{C}-$ or higher is required in each course: |  |  |
| CS 1800 | Discrete Structures |  |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| with CS 2501 | Lab for CS 2500 |  |
| CS 2510 | Fundamentals of Computer Science 2 |  |
| with CS 2511 | Lab for CS 2510 |  |
| 2800 | Logic and Computation |  |
| with CS 2801 | Lab for CS 2800 |  |

## Computer Science Required Courses

Complete the following four courses:

| CS 3200 | Database Design | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |

Computer Science Senior Seminar
Complete the following course:
CS $4000 \quad$ Senior Seminar 1 SH

## Integrative Courses

Complete the following two courses:
CS $4300 \quad$ Computer Graphics 4 SH
IS $4300 \quad$ Human Computer Interaction 4 SH

## Computer Science Elective Courses

Complete two upper-division computer science courses. With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives:
CS 2600 Computer Organization
4 SH
CS 3200 to CS 4993
IS 4200 Information Retrieval
4 SH

## DIGITAL ART COURSES

## Required Digital Art Courses

Complete the following four courses with corresponding tools courses, as indicated:

| ARTF 1122 | 2D Foundation | 4 SH |
| :--- | :--- | :--- |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |

## Digital Art Electives

Complete six courses with corresponding tools courses, as indicated, from the six categories below. Normally, students are expected to complete all prerequisites for courses they wish to take. For exceptions based on some form of alternate experience, seek permission of instructor:

BASICS

| ARTD 2360 | Photo Basics | 4 SH |
| :---: | :---: | :---: |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| PHOTOGRAPHY |  |  |
| ARTD 3460 | Photography 1 | 4 SH |
| ARTD 4560 | Photography 2 | 4 SH |
| ARTS 4602 | Fine Art Digital Imaging | 4 SH |
| ARTD 4661 | Alternative Photographic Processes | 4 SH |
| ANIMATION |  |  |
| ARTD 3470 | Animation Studio 1 | 4 SH |
| ARTD 4570 | Animation Studio 2 | 4 SH |
| ARTD 4575 | Animation Studio 3 | 4 SH |
| VIDEO |  |  |
| ARTD 3480 | Video 1 | 4 SH |
| ARTD 4580 | Video 2 | 4 SH |
| ARTD 4680 | Video 3 | 4 SH |
| HISTORY |  |  |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |
| DIRECTIONS |  |  |
| ARTD 4530 | Contemporary Directions in Digital Art | 4 SH |
| Digital Art Capstone Requirement |  |  |
| Complete the following course: |  |  |
| ARTD 4670 | Digital Art Degree Project | 4 SH |

## GENERAL REQUIREMENTS

## Social Science Level 1

Complete the following course, which satisfies the NU Core social science level 1 requirement:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## Mathematics

Complete the following course:
MATH 2331 Linear Algebra 4 SH

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete four general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
137 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Environmental Science COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science Overview 1 | 1 SH |
| :---: | :---: | :---: |
| CS 1210 | Computer/Information Science Overview 2 | 1 SH |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op Preparation | 1 SH |
| Computer Science Fundamental Courses |  |  |
| Complete the following four courses with corresponding labs, as indicated. A grade of $\mathrm{C}-$ or higher is required in each course: |  |  |
| CS 1800 | Discrete Structures | 4 SH |
| with CS 1801 | Recitation for CS 1800 | 0 SH |
| CS 2500 | Fundamentals of Computer Science 1 | H |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | H |
| with CS 2801 | Lab for CS 2800 | 1 S |

## Computer Science Required Courses

Complete the following five courses:

| CS 3200 | Database Design | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |
| IS 4800 | Empirical Research Methods | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS 4000 Senior Seminar

## ENVIRONMENTAL SCIENCE COURSES

## Environmental Science Required Courses

Complete the following four courses with corresponding labs, as indicated:

| ENVR 1200 | Dynamic Earth | 4 SH |
| :--- | :--- | :--- |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH |
| ENVR 1202 | History of Earth and Life | 4 SH |
| with ENVR 1203 | Interpreting Earth History | 1 SH |
| or ENVR 2310 | Earth Materials | 4 SH |
| with ENVR 2311 | Lab for ENVR 2310 | 1 SH |


| ENVR 4900 | Earth and Environmental Science <br> Capstone | 1 SH |
| :--- | :--- | :--- |
| ENVR 5210 | Environmental Planning | 4 SH |
| or ENVR 5250 | Geology and Land-Use Planning | 4 SH |

## Environmental Science Integrative Courses

Complete at least two of the following courses. If the course has a corresponding lab, the lab must also be completed:

| ENVR 3300 | Geographic Information Systems | 4 SH |
| :--- | :--- | :--- |
| with ENVR 3301 | Lab for ENVR 3300 | 1 SH |
| ENVR 3302 | Introduction to Remote Sensing | 4 SH |
| with ENVR 3303 | Lab for ENVR 3302 | 1 SH |
| ENVR 3418 | Geophysics | 4 SH |
| ENVR 4500 | Applied Hydrogeology | 4 SH |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH |
| ENVR 5280 | Groundwater Modeling | 4 SH |

## Environmental Science Electives

Complete four courses. If a course has a corresponding lab, the lab must also be completed. If you complete more than two courses from the environmental science integrative courses (above), these courses count as environmental science electives:

| ENVR 1101 | Environmental Science | 4 SH |
| :---: | :---: | :---: |
| ENVR 2340 | Earth Landforms and Processes | 4 SH |
| with ENVR 2341 | Lab for ENVR 2340 | 1 SH |
| ENVR 3400 | Field Geology | 4 SH |
| ENVR 3410 | Environmental Geochemistry | 4 SH |
| ENVR 4106 | Coastal Processes | 4 SH |
| with ENVR 4107 | Lab for ENVR 4106 | 1 SH |
| ENVR 4504 | Environmental Pollution | 4 SH |
| ENVR 4505 | Wetlands | 4 SH |
| ENVR 4563 | Advanced Spatial Analysis | 4 SH |
| ENVR 5190 | Soil Science | 4 SH |
| ENVR 5201 | Geologic Field Seminar | 4 SH |
| ENVR 5230 | Structural Geology | 4 SH |
| with ENVR 5231 | Lab for ENVR 5230 | 1 SH |
| ENVR 5240 | Sedimentary Basin Analysis | 4 SH |
| with ENVR 5241 | Lab for ENVR 5240 | 1 SH |
| ENVR 5242 | Ancient Marine Life | 4 SH |
| with ENVR 5243 | Lab for ENVR 5242 | 1 SH |
| ENVR 5244 | Sedimentation | 4 SH |
| ENVR 5248 | Marine Geology | 4 SH |
| ENVR 5270 | Glacial and Quaternary History | 4 SH |
| with ENVR 5271 | Lab for ENVR 5270 | 1 SH |
| ENVR 5282 | Groundwater Geochemistry | 4 SH |
| INTL 4937 | Dialogue of Civilizations: Science and Technology | 4 SH |
| ADDITIONAL REQUIREMENTS |  |  |
| Calculus |  |  |
| Complete the following two courses: |  |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 SH |
| or MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |


| MATH 1252 | Calculus and Differential Equations for Biology 2 | 4 SH | CS 2510 <br> with CS 2511 | Fundamentals of Computer Science 2 <br> Lab for CS 2510 | $\begin{aligned} & 4 \mathrm{SH} \\ & 1 \mathrm{SH} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| or MATH 1342 | Calculus 2 for Science and | 4 SH | CS 2800 | Logic and Computation | 4 SH |
|  | Engineering |  | with CS 2801 | Lab for CS 2800 | 1 SH |
| Chemistry |  |  | Computer Science Required Courses |  |  |
| Complete the following two courses with corresponding labs: |  |  | Complete the following three courses: |  |  |
| CHEM 1211 | General Chemistry 1 | 4 SH | CS 3500 | Object-Oriented Design | 4 SH |
| with CHEM 1212 | Lab for CHEM 1211 | 1 SH | CS 3800 | Theory of Computation | 4 SH |
| CHEM 1214 | General Chemistry 2 | 4 SH | CS 4500 | Software Development | 4 SH |
| with CHEM 1215 | Lab for CHEM 1214 | 1 SH | Computer Sci | Senior Seminar |  |
| Computers and Society |  |  | Complete the following senior seminar: |  |  |
| Complete the following course: |  |  | CS 4000 Senior Seminar |  | 1 SH |
| SOCL 4528 Computers and Society |  | 4 SH | Computer Science Integrative Courses |  |  |
| REQUIRED GENERAL ELECTIVES |  |  | Complete the following two courses: |  |  |
| Complete seven general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement |  |  | CS 4300 | Computer Graphics | 4 SH |
|  |  |  | IS 4300 | Human Computer Interaction | 4 SH |

and one must be used to satisfy the NU Core social science level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

139 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Game Design

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science <br> Overview 1 <br> Computer/Information Science <br> Overview 2 | 1 SH |
| :--- | :---: | :---: |
| CS 1210 | 1 SH |  |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op <br> Preparation | 1 SH |

## Computer Science Fundamental Courses

Complete the following four courses, with corresponding labs, as indicated. A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| with CS 1801 | Recitation for CS 1800 | 0 SH |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |

## GENERAL REQUIREMENTS

## Social Science Level 1

Complete the following course:
PSYC 1101 Foundations of Psychology 4 SH
Mathematics
Complete the following course:
MATH $1260 \quad$ Math Fundamentals for Games 4 SH

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## GAME DESIGN COURSES

Art + Design Courses
Complete the following five courses, with corresponding tools courses, as indicated:

| ARTF 1122 | 2D Foundation | 4 SH |
| :--- | :--- | :--- |
| with ARTF 1123 | 2D Tools: Imaging Basics | 1 SH |
| ARTF 1124 | 3D Foundation | 4 SH |
| with ARTF 1125 | 3D Tools: Form Basics | 1 SH |
| ARTF 2220 | 4D Foundation | 4 SH |
| with ARTF 2221 | 4D Tools: Motion Basics | 1 SH |
| ARTF 2223 | Interactive Foundation | 4 SH |
| with ARTF 2224 | Interactive Tools | 1 SH |
| ARTD 2370 | Animation Basics | 4 SH |
| with ARTD 2371 | Animation Tools | 1 SH |

## Game Design Courses

| Complete the following seven courses: |  |  |
| :--- | :--- | :--- |
| GAME 1110 | Games and Society | 4 SH |
| GAME 2150 | Programming for Games | 4 SH |
| GAME 3150 | Game Design Algorithms | 4 SH |
| GAME 3700 | Game Projects: Preproduction | 4 SH |
| GAME 3800 | Game Projects: | 4 SH |
|  | Assets and Prototyping |  |
| GAME 4700 | Game Design Capstone 1 | 4 SH |
| GAME 4701 | Game Design Capstone 2 | 4 SH |

## CREATIVE INDUSTRIES ELECTIVES

Complete three courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:
Art + Design

| ARTH 1111 | Art + Design History since 1400 | 4 SH |
| :--- | :--- | :--- |
| ARTH 2210 | Art + Design History, 1900 to 1945 | 4 SH |
| ARTH 2212 | Survey of the Still and Moving Image | 4 SH |

Digital Art: Animation

| ARTD 3470 | Animation Studio 1 | 4 SH |
| :--- | :--- | :--- |
| ARTD 4570 | Animation Studio 2 | 4 SH |
| ARTD 4575 | Animation Studio 3 | 4 SH |

Digital Art: Photography

| ARTD 2360 | Photo Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 3460 | Photography 1 | 4 SH |
| ARTD 4560 | Photography 2 | 4 SH |
| ARTD 4661 | Alternative Photographic Processes | 4 SH |
| Digital Art: Video |  |  |
| ARTD 2380 | Video Basics | 4 SH |
| with ARTD 2381 | Video Tools | 1 SH |
| ARTD 3480 | Video 1 | 4 SH |
| Graphic Design |  |  |
| ARTG 2250 | Typography 1 | 4 SH |
| with ARTG 2251 | Type Tools | 1 SH |
| ARTG 2252 | Graphic Design 1 | 4 SH |
| ARTG 3350 | Typography 2 | 4 SH |
| Interactive Media |  |  |
| IM 1110 | Interactive Media and Society | 4 SH |
| IM 2100 | Digital Narrative 1 | 4 SH |
| IM 2200 | Digital Narrative 2 | 4 SH |
| IM 2300 | Managing Media Development | 4 SH |
| IM 2400 | Web Design and Development | 4 SH |
| with IM 2401 | Web Development Tools | 1 SH |
| IM 3200 | Interactive Sound Development | 4 SH |
| IM 4992 | Directed Study | 4 SH |
| IM 4993 | Inderit | 4 SH |

IM $4993 \quad$ Independent Study 4 SH

| Computer Science |  |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 SH |
| CS 4100 | Artificial Intelligence | 4 SH |
| CS 4400 | Programming Languages | 4 SH |
| CS 4550 | Web Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |
| CS 4910 | Computer Science Topics | 4 SH |
| CS 4992 | Directed Study | 4 SH |
| CS 4993 | Independent Study | 4 SH |
| Psychology |  |  |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## REQUIRED GENERAL ELECTIVES

Complete three general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

139 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Interactive Media COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS $1200 \quad$ Computer/Information Science 1 SH

CS $1210 \quad$ Computer/Information Science 1 SH
Overview 2
Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op 1 SH Preparation

## Computer Science Fundamental Courses

Complete the following four courses, with corresponding labs, as indicated. A grade of C- or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| with CS 1801 | Recitation for CS 1800 | 0 SH |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following three courses:

| CS 3500 | Object-Oriented Design | 4 SH |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |

Computer Science Senior Seminar
Complete the following senior seminar: CS $4000 \quad$ Senior Seminar

Computer Science Integrative Courses
Complete the following two courses:

| CS 4300 | Computer Graphics | 4 SH |
| :--- | :--- | :--- |
| IS 4300 | SH |  |

## INTERACTIVE MEDIA REQUIREMENTS

## Interactive Media Courses

Complete the following seven courses, with corresponding lab, as indicated:

IM 1110
Interactive Media and Society
4 SH
IM 2100
Digital Narrative 1
4 SH
IM $2250 \quad$ Programming for Digital Media 4 SH
IM $2400 \quad$ Web Design and Development 4 SH
with IM 2401 Web Development Tools 1 SH
IM 3200
IM 4700
Interactive Sound Development
4 SH

IM 4701 Interactive Media Capstone 24 SH
Art + Design
Complete the following four courses with corresponding tools courses:
ARTF 1122 2D Foundation 4 SH
with ARTF 1123 2D Tools: Imaging Basics 1 SH
ARTF 1124 3D Foundation 4 SH
with ARTF 1125 3D Tools: Form Basics 1 SH
ARTF 22204 4D Foundation 4 SH
with ARTF 2221 4D Tools: Motion Basics 1 SH
ARTF 2223 Interactive Foundation 4 SH
with ARTF 2224 Interactive Tools 1 SH
GENERAL REQUIREMENTS
Social Science Level 1
Complete the following course:
PSYC 1101 Foundations of Psychology
Mathematics
Complete the following course:
MATH $1260 \quad 4$ SH

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society

## CREATIVE INDUSTRIES ELECTIVES

Complete four courses from the following lists. If the course has prerequisites, the student must complete those first unless permission is obtained in advance from the program office. If the course requires a corresponding lab or tools course, that course must be taken as well:

Art + Design
ARTH 1111 Art + Design History since 1400 SH
ARTH 2210 Art + Design History, 1900 to 19454 SH
ARTH $2212 \quad$ Survey of the Still and Moving Image 4 SH
Digital Art: Animation

| ARTD 2370 | Animation Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2371 | Animation Tools | 1 SH |
| ARTD 3470 | Animation Studio 1 | 4 SH |
| Digital Art: Photography |  |  |
| ARTD 2360 | Photo Basics | 4 SH |
| with ARTD 2361 | Photo Tools | 1 SH |
| ARTD 3460 | Photography 1 | 4 SH |

Digital Art: Video

| ARTD 2380 | Video Basics | 4 SH |
| :--- | :--- | :--- |
| with ARTD 2381 | Video Tools | 1 SH |

ARTD $3480 \quad$ Video 1 SH

Graphic Design
ARTG 2250 Typography 1 SH
with ARTG 2251 Type Tools 1 SH
ARTG $2252 \quad$ Graphic Design 14 SH
ARTG 3350 Typography 24 SH
Interactive Media
IM $2200 \quad$ Digital Narrative $2 \quad 4$ SH
IM $2300 \quad$ Managing Media Development 4 SH
IM $3250 \quad$ Physical Computing 4 SH
IM $3500 \quad$ Cross-Media Marketing 4 SH

IM $3600 \quad$ Market Analysis 4 SH

IM $3700 \quad$ Interface and Virtual Environments 4 SH
IM $3899 \quad$ Topics in Interactive Media 4 SH
Computer Science

| CS 3200 | Database Design | 4 SH |
| :---: | :---: | :---: |
| CS 4100 | Artificial Intelligence | 4 SH |
| CS 4400 | Programming Languages | 4 SH |
| CS 4550 | Web Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |
| CS 4910 | Computer Science Topics | 4 SH |
| CS 4992 | Directed Study | 4 SH |
| CS 4993 | Independent Study | 4 SH |
| Psychology |  |  |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

## REQUIRED GENERAL ELECTIVES

Complete three general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

MAJOR GPA REQUIREMENT
Minimum 2.670 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

138 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Mathematics

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS 1200
Computer/Information Science
Overview 1
Computer/Information Science
Overview 2

Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| Computer Science Required Courses |  |  |
| Complete the following five courses: |  |  |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4300 | Computer Graphics | 4 SH |
| CS 4500 | Software Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS $4000 \quad$ Senior Seminar 1 SH

## Computer Science Elective Courses

Complete two upper-division computer science courses. With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives:
CS 2600 Computer Organization
4 SH
CS 3200 to CS 4993
IS $4200 \quad$ Information Retrieval 4 SH
IS $4300 \quad$ Human Computer Interaction 4 SH

## MATHEMATICS COURSES

## Calculus Courses

Complete the following three courses with a grade of C - or higher in MATH 1341 and MATH 1342:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH

## Mathematics Courses

Complete the following five courses:

| MATH 2331 | Linear Algebra | 4 SH |
| :--- | :--- | ---: |
| MATH 2351 | Ordinary Differential Equations | 4 SH |
| MATH 3081 | Probability and Statistics | 4 SH |
| MATH 3175 | Group Theory | 4 SH |
| MATH 3527 | Number Theory | 4 SH |
| Co-op Seminar |  |  |
| Complete the following course after the first co-op is completed: |  |  |
| MATH 3000 | Co-op and Experiential Learning | 1 SH |
|  | Reflection Seminar 1 |  |

## Mathematics Electives

Complete three upper-division mathematics courses from the following list. Note: MATH 4000 may not be used for this requirement:
MATH 3001 to MATH 4999

## COMPUTERS AND SOCIETY

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete seven general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement, and one must be used to satisfy the NU Core social science level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

134 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Music with Concentration in Music Technology

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS $1200 \quad$ Computer/Information Science $\quad 1$ SH
CS $1210 \quad$ Computer/Information Science 1 SH

| Computer/Information Science | 1 SH |
| :--- | :---: |
| Overview 1 | 1 SH |
| Computer/Information Science |  |
| Overview 2 |  |

Engineering

| Upper-level transfer students complete the following cours |  |  |
| :---: | :---: | :---: |
| CS 1220 | Computer/Information Science Co-op Preparation | 1 SH |
| Computer Science Fundamental Courses |  |  |
| Complete the following four courses with corresponding labs, as indicated. A grade of $\mathrm{C}-$ or higher is required in each course: |  |  |
| CS 1800 | Discrete Structures | 4 S |
| CS 2500 | Fundamentals of Computer Science 1 | 4 S |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| 2800 | Logic and Computation | 4 |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following four courses:

| CS 3200 | Database Design | 4 SH |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 SH |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS $4000 \quad$ Senior Seminar

## Computer Science Integrative Course

Complete the following course:
IS $4300 \quad$ Human Computer Interaction 4 SH

## Computer Science Elective Courses

Complete two upper-division computer science courses. With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives:
CS 2600 Computer Organization
4 SH
CS 3200 to CS 4993
IS 4200 Information Retrieval

## MUSIC TECHNOLOGY COURSES

## Music Theory

Complete the following two courses. Music Theory and Musicianship should be taken concurrently, as indicated:
MUSC 1201 Music Theory 1
with MUSC 1241 Musicianship $1 \quad 1$ SH
MUSC 1202 Music Theory 24 SH
with MUSC 1242 Musicianship 21 SH

## Music Literature and History

Complete the following two courses. Note: MUSC 2308 is a prerequisite to MUST 2315:
MUSC $2308 \quad$ Principles of Music Literature 4 SH
MUST $2315 \quad$ History of Electronic Music 4 SH

## Music Technology

Complete the following four courses in the order indicated:
MUST $1220 \quad$ Music and Technology 1 SH
MUST 1221 Music and Technology 2 SH
MUST 3422 Music Composition Seminar 2 SH
MUST 4520 Interactive Real-Time Performance 4 SH

## Electronic Composition and Performance

Complete the following two courses in the order indicated:
MUST $4610 \quad$ Composition for Electronic 4 SH Instruments
MUST $4611 \quad$ Music Technology Capstone/Senior 4 SH Recital

## Music Technology Integrative Course

Complete the following course:
MUST $3421 \quad$ Digital Audio Processing 4 SH

## Music Lessons

Complete the following (repeatable) course four times:
MUSC 1903 Composition Lessons 1 SH

## Music Elective Requirements

Complete two additional courses from the following list with corresponding musicianship courses, as indicated. Note:
MUSC 2303 is a prerequisite for MUSC 2304; MUSC 2308 is a prerequisite for MUSC 2311, MUSC 2312, and MUSC 2313:
IDSC $4699 \quad$ Advanced Television Production 4 SH

MMST $3350 \quad$ Programming for Multimedia 4 SH
MUSC 2303 Music Theory 3 SH
with MUSC 2343 Musicianship 31 SH
MUSC 2304 Music Theory 4 SH
with MUSC 2344 Musicianship 41 SH
MUSC $2311 \quad$ Historical Traditions 1: America 4 SH
MUSC $2312 \quad$ Historical Traditions 2: Classical 4 SH
MUSC $2313 \quad$ Historical Traditions 3: World 4 SH
MUSI 2233 Music Production for Radio and Web 4 SH
MUST $2320 \quad$ Sound Design 4 SH
GENERAL REQUIREMENTS

## Foundations of Psychology

Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH
Computers and Society
Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete four general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
139 total semester hours required
Minimum 2.000 GPA required

## BS in Computer Science and Physics

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

CS $1210 \quad$| Computer/Information Science |
| :--- |
| Overview 2 |

Upper-level transfer students complete the following course:
CS 1220

> Computer/Information Science Co-op Preparation

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following four courses:

| CS 3500 | Object-Oriented Design | 4 SH |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4500 | Software Development | 4 SH |
| CS 4800 | Algorithms and Data | 4 SH |

## Computer Science Senior Seminar

Complete the following course:
CS 4000 Senior Seminar
1 SH

## Computer Science Elective Course

Complete one upper-division computer science course. Either this course or one physics elective must satisfy the NU Core capstone requirement. With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as a computer science elective:

| CS 2600 | Computer Organization | 4 SH |
| :--- | :--- | :--- |
| CS 3200 to CS 4993 |  |  |
| IS 4200 | Information Retrieval | 4 SH |
| IS 4300 | Human Computer Interaction | 4 SH |

## PHYSICS COURSES

## Required Courses

Complete the following two courses with corresponding labs:
PHYS $1161 \quad$ Physics $1 \quad 4$ SH
with PHYS 1162 Lab for PHYS 11611 SH
PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH

## Intermediate Physics

Complete the following three courses:

| PHYS 2303 | Modern Physics | 4 SH |
| :--- | :--- | :--- |
| PHYS 2305 | Thermodynamics and Statistical <br> Mechanics | 4 SH |
|  |  |  |
| PHYS 2371 | Electronics | 4 SH |

## Advanced Physics

Complete the following two courses:

| PHYS 3600 | Advanced Physics Laboratory 1 | 4 SH |
| :--- | :--- | :--- |
| PHYS 3602 | Electricity and Magnetism | 4 SH |

## Physics Elective

Complete two upper-division courses from the physics department. One of these courses or one computer science elective must satisfy the NU Core capstone requirement:
PHYS 2990 to PHYS 9999

## MATHEMATICS INTEGRATIVE COURSES

## Calculus

Complete the following three courses with a grade of C - or higher in MATH 1341 and MATH 1342:
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH Engineering

## Additional Math Requirements

Complete the following two courses:
MATH $2351 \quad$ Ordinary Differential Equations 4 SH
MATH 4525 Applied Analysis 4 SH

## COMPUTERS AND SOCIETY

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete six general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement and one must be used to satisfy the NU Core social science level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

135 total semester hours required
Minimum 2.000 GPA required

## BS in Information Science and Business Administration

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science Overview 1 | 1 SH |
| :---: | :---: | :---: |
| CS 1210 | Computer/Information Science Overview 2 | 1 SH |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op Preparation | 1 SH |
| Computer Science Fundamental Courses |  |  |
| Complete the following four courses with corresponding labs, as indicated. A grade of C- or higher is required in each course: |  |  |
| CS 1800 | Discrete Structures | 4 SH |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | H |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation |  |
| with CS 2801 | Lab for CS 2800 |  |

## Computer Science Required Courses

Complete the following two courses:
CS $3200 \quad$ Database Design 4 SH
CS $3500 \quad$ Object-Oriented Design 4 SH

## Computer Science Senior Seminar

Complete the following course:
CS $4000 \quad$ Senior Seminar 1 SH

Information Science Required Courses
Complete the following three courses:

| IS 2000 | Principles of Information Science | 4 SH |
| :--- | :--- | :--- |
| IS 3500 | Information System Design and <br> Development | 4 SH |
| IS 4800 | Empirical Research Methods | 4 SH |

## Integrative Courses

Complete the following two courses:

| MISM 3305 | Information Resource Management | 4 SH |
| :--- | :--- | :--- |
| MISM 3404 | Business Data Communications | 4 SH |

## Upper-Division IS Elective

Complete one upper-division IS elective. With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as an information science elective:
CS 3600 to CS 4993
IS 2990 to IS 4993

## BUSINESS COURSES

Required Business Courses
Complete the following seven courses:

| ACCT 1201 | Financial Accounting and Reporting | 4 SH |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 SH |
| FINA 2201 | Financial Management | 4 SH |
| MGSC 1201 | Business Statistics | 4 SH |
| MKTG 2201 | Introduction to Marketing | 4 SH |
| ORGB 3201 | Organizational Behavior | 4 SH |
| STRT 4501 | Strategy in Action | 4 SH |

## BUSINESS CONCENTRATION

Complete a four-course business concentration from the list below:

## Concentration in Accounting

ACCOUNTING REQUIRED COURSES
Complete the following two courses:

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 SH |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 SH |

## ACCOUNTING ELECTIVE COURSES

Complete two courses from the following list:

| ACCT 3403 | Accounting Information Systems | 4 SH |
| :---: | :---: | :---: |
| ACCT 3416 | Strategic Cost Analysis for Decision Making | 4 SH |
| ACCT 4412 | Auditing and Other Assurance Services | 4 SH |
| ACCT 4414 | Income Tax Determination and Planning | 4 SH |

## Concentration in Entrepreneurship and Innovation

Complete the following four courses:
ENTR 2201 The Entrepreneurial Universe 4 SH
ENTR $3301 \quad$ Opportunity Assessment and 4 SH Entrepreneurship Marketing
ENTR 3401 Small Business Management, 4 SH Operations, and Growth
ENTR $4501 \quad$ Venture Creation and Entrepreneurial 4 SH
Finance
or ENTR 4503 Small Business Service and Retail 4 SH Creation

## Concentration in Finance

FINANCE REQUIRED COURSES
Complete the following two courses:
FINA $3301 \quad$ Corporate Finance 4 SH
FINA 3303 Investments 4 SH
FINANCE ELECTIVE COURSES
Complete two additional FINA courses.

## Concentration in Management

MANAGEMENT REQUIRED COURSE
Complete the following course:
MGMT 3303 Building Your Management Skills 4 SH
MANAGEMENT ELECTIVE COURSES
Complete three additional MGMT courses.

## Concentration in Marketing

MARKETING REQUIRED COURSES
Complete the following two courses:

| MKTG 3301 | Marketing Management | 4 SH |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 SH |
| MARKETING ELECTIVE COURSES |  |  |
| Complete two additional MKTG courses. |  |  |
| Concentration in Supply Chain Management |  |  |
| Complete the following four courses: |  |  |
| SCHM 2201 | Supply Chain Management | 4 SH |
| SCHM 3301 | Global Supply Chain Management | 4 SH |
| SCHM 3310 | The Transportation Industries | 4 SH |
| SCHM 4401 | Advanced Problems in Supply Chain | 4 SH |
|  | Management |  |

## MATHEMATICS AND GENERAL REQUIREMENTS

## Mathematics

Complete one of the following courses:
MATH 1231 Calculus for Business and Economics 4 SH
MATH 1341 Calculus 1 for Science and 4 SH Engineering

## Economics

Complete the following two courses:

| ECON 1115 | Principles of Macroeconomics | 4 SH |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 SH |

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society 4 SH

## REQUIRED GENERAL ELECTIVES

Complete three general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives. Note: Computer science/business administration and information science/business administration dual majors may satisfy the latter requirement by completing the following course: INTB 1203 International Business and Global 4 SH Social Responsibility

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
133 total semester hours required Minimum 2.000 GPA required

## BS in Information Science and Cognitive Psychology

## COMPUTER AND INFORMATION SCIENCE

 COURSES
## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:
CS $1200 \quad$ Computer/Information Science $\quad 1$ SH

CS $1210 \quad$ Computer/Information Science $\quad 1 \mathrm{SH}$
Overview 2
Upper-level transfer students complete the following course:
CS $1220 \quad$ Computer/Information Science Co-op 1 SH
Preparation

## Computer Science Fundamental Courses

Complete the following four courses with corresponding labs, as indicated. A grade of C- or higher is required in each course:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |

## Computer Science Required Courses

Complete the following three courses. Note: CS 4100 is an integrative course:

| CS 3500 | Object-Oriented Design | 4 SH |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 SH |
| CS 4100 | Artificial Intelligence | 4 SH |

## Information Science

Complete the following five courses, including senior project.
Note: IS 4300 and IS 4900 are integrative courses:

| IS 2000 | Principles of Information Science <br> Information System Design and <br> IS 3500 | 4 SH |
| :--- | :--- | :--- |
|  | Development |  |
| IS 4300 | Human Computer Interaction | 4 SH |
| IS 4800 | Empirical Research Methods | 4 SH |
| IS 4900 | Information Science Senior Project | 5 SH |

## PSYCHOLOGY COURSES

## Required Courses

Complete the following four courses:

| PSYC 1101 | Foundations of Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 SH |
| PSYC 3464 | Psychology of Language | 4 SH |
| PSYC 3466 | Cognition | 4 SH |

Advanced Psychology
Complete one course from the following list:
PSYC $3452 \quad$ Sensation and Perception 4 SH
PSYC 3458 Psychobiology 4 SH

## Laboratory in Psychology

Complete one course from the following list:

| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4622 | Laboratory in Sensation and | 4 SH |
|  | Perception |  |

## Seminar in Psychology

Complete one course from the following list:

| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| :--- | :--- | :--- |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4668 | Seminar in Sensation and Perception | 4 SH |

## Psychology Electives

Complete two courses from the following list: Note: Courses satisfying the categories above cannot be reused:

| PSYC 3402 | Social Psychology | 4 SH |
| :--- | :--- | :--- |
| PSYC 3450 | Learning and Motivation | 4 SH |
| PSYC 3452 | Sensation and Perception | 4 SH |
| PSYC 3458 | Psychobiology | 4 SH |
| PSYC 3526 | Categorization and Reasoning | 4 SH |
| PSYC 4520 | Language and the Brain | 4 SH |
| PSYC 4522 | Psychology of Reading | 4 SH |
| PSYC 4524 | Cognitive Development | 4 SH |
| PSYC 4610 | Laboratory in Psycholinguistics | 4 SH |
| PSYC 4612 | Laboratory in Cognition | 4 SH |
| PSYC 4622 | Laboratory in Sensation and | 4 SH |
|  | $\quad$ Perception |  |
| PSYC 4652 | Seminar in Ethics in Psychology | 4 SH |
| PSYC 4658 | Seminar in Psycholinguistics | 4 SH |
| PSYC 4660 | Seminar in Cognition | 4 SH |
| PSYC 4668 | Seminar in Sensation and Perception | 4 SH |
| PSYC 4970 | Junior/Senior Honors Project 1 | 4 SH |
| with PSYC 4971 | Junior/Senior Honors Project 2 | 4 SH |

## ADDITIONAL REQUIREMENTS

## Calculus

Complete the following course:
MATH $1341 \quad \begin{gathered}\text { Calculus } 1 \text { for Science and } \\ \text { Engineering }\end{gathered}$

## Computers and Society

Complete the following course:
SOCL $4528 \quad$ Computers and Society
4 SH

## REQUIRED GENERAL ELECTIVES

Complete seven general electives. One of these electives must be used to satisfy the NU Core arts/humanities level 1 requirement. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it must also be one of the general electives.

## MAJOR GPA REQUIREMENT

Minimum 2.000 GPA required in all CS and IS courses.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

133 total semester hours required
Minimum 2.000 GPA required

## BS in Information Science and Environmental Science

## COMPUTER SCIENCE COURSES

## Computer Science Overview

Freshmen or freshmen transfers complete the following two courses:

| CS 1200 | Computer/Information Science <br> Overview 1 <br> Computer/Information Science <br> Overview 2 | 1 SH |
| :--- | :---: | :---: |
| CS 1210 | 1 SH |  |
| Upper-level transfer students complete the following course: |  |  |
| CS 1220 | Computer/Information Science Co-op <br> Preparation | 1 SH |

Computer Science Fundamental Courses
Complete the following four courses with corresponding labs, as indicated:

| CS 1800 | Discrete Structures | 4 SH |
| :--- | :--- | :--- |
| with CS 1801 | Recitation for CS 1800 | 0 SH |
| CS 2500 | Fundamentals of Computer Science 1 | 4 SH |
| with CS 2501 | Lab for CS 2500 | 1 SH |
| CS 2510 | Fundamentals of Computer Science 2 | 4 SH |
| with CS 2511 | Lab for CS 2510 | 1 SH |
| CS 2800 | Logic and Computation | 4 SH |
| with CS 2801 | Lab for CS 2800 | 1 SH |
| Computer Science Required Courses |  |  |
| Complete the following two courses: |  |  |
| CS 3200 | Database Design | 4 SH |
| CS 3500 | Object-Oriented Design | 4 SH |

Information Science Required Courses
Complete the following three courses:

| IS 2000 | Principles of Information Science | 4 SH |
| :--- | :--- | :--- |
| IS 3500 | Information System Design and <br> Development | 4 SH |
|  | IS 4800 | Empirical Research Methods |

## Upper-Division IS Elective

Complete one upper-division IS elective. With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as an information science elective:
IS 4000 to IS 4999

## ENVIRONMENTAL SCIENCE COURSES

## Required Environmental Science Courses

Complete the following four courses with corresponding labs, as indicated:

| ENVR 1101 | Environmental Science | 4 SH | Chemistry |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENVR 1200 | Dynamic Earth | 4 SH | Complete one of the following courses with corresponding lab: |  |  |
| with ENVR 1201 | Lab for ENVR 1200 | 1 SH | CHEM 1151 | General Chemistry for Engineers | 4 SH |
| ENVR 4900 | Earth and Environmental Science | 1 SH | with CHEM 1152 | Lab for CHEM 1151 | 1 SH |
|  | Capstone |  | CHEM 1211 | General Chemistry 1 | 4 SH |
| ENVR 5210 | Environmental Planning | 4 SH | with CHEM 1212 | Lab for CHEM 1211 | 1 SH |
| or ENVR 5250 | Geology and Land-Use Planning | 4 SH | General Requirements |  |  |
| Integrative Course |  |  | Complete the following two courses: |  |  |
| Complete the following course: |  |  | ECON 1116 | Principles of Microeconomics | 4 SH |
| ENVR 3300 | Geographic Information Systems | 4 SH | SOCL 4528 | Computers and Society | 4 SH |
| Environmental Science Electives |  |  | REQUIRED GENERAL ELECTIVES |  |  |
| Complete three courses from the following list with corresponding labs, as indicated: |  |  | Complete five general electives. If the NU Core comparative study of cultures requirement is to be satisfied by taking a course, then it |  |  |
| ENVR 1202 | History of Earth and Life | 4 SH |  |  |  |
| with ENVR 1203 | Interpreting Earth History | 1 SH | must be one of the general electives. |  |  |
| ENVR 3302 | Introduction to Remote Sensing | 4 SH | NU CORE REQUIREMENTS |  |  |
| with ENVR 3303 | Lab for ENVR 3302 | 1 SH | See page 26 for requirement list. |  |  |
| ENVR 3400 | Field Geology | 4 SH | GENERAL ELECTIVES |  |  |
| ENVR 3410 | Environmental Geochemistry | 4 SH | Additional courses taken beyond college and major course |  |  |
| ENVR 3418 | Geophysics | 4 SH | requirements to satisfy graduation credit requirements. |  |  |
| ENVR 4106 | Coastal Processes | 4 SH | COOPERATIVE EDUCATION |  |  |
| with ENVR 4107 | Lab for ENVR 4106 | 1 SH |  |  |  |
| ENVR 4500 | Applied Hydrogeology | 4 SH | UNIVERSITY-WIDE REQUIREMENTS |  |  |
| with ENVR 4501 | Lab for ENVR 4500 | 1 SH | 139 total semester hours required |  |  |
| ENVR 4504 | Environmental Pollution | 4 SH | Minimum 2.000 GPA required |  |  |
| ENVR 4505 | Wetlands | 4 SH |  |  |  |
| ENVR 5201 | Geologic Field Seminar | 4 SH |  |  |  |
| ENVR 5210 | Environmental Planning | 4 SH |  |  |  |
| ENVR 5242 | Ancient Marine Life | 4 SH |  |  |  |
| with ENVR 5243 | Lab for ENVR 5242 | 1 SH |  |  |  |
| ENVR 5250 | Geology and Land-Use Planning | 4 SH |  |  |  |
| Sustainability Focus Courses |  |  |  |  |  |
| Complete the following course: |  |  |  |  |  |
| PHIL 1180 | Environmental Ethics | 4 SH |  |  |  |
| and two additional courses from the following list: |  |  |  |  |  |
| ECON 3423 | Environmental Economics | 4 SH |  |  |  |
| ENVR 4515 | Sustainable Development | 4 SH |  |  |  |
| HIST 3412 | Global Environmental History | 4 SH |  |  |  |
| INTL 4937 | Dialogue of Civilizations: Science and Technology | 4 SH |  |  |  |
| POLS 2390 | Science, Technology, and Public Policy | 4 SH |  |  |  |
| POLS 2395 | Environmental Politics | 4 SH |  |  |  |
| SOCL 1246 | Environment and Sociology | 4 SH |  |  |  |
| ADDITIONAL REQUIREMENTS |  |  |  |  |  |
| Mathematics and Statistics |  |  |  |  |  |
| Complete the following two courses: |  |  |  |  |  |
| ECON 2350 | Statistics | 4 SH |  |  |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 SH |  |  |  |
| or MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |  |  |  |

Chester L. Britt, PhD, Associate Professor and Interim Dean

John F. McDevitt, MPA, Associate Dean for Research and Graduate Education
Gail P. Horn, MEd, Academic Advisor
Helene Tischler, MA, Academic Advisor

Office: 204 Churchill Hall
Phone: 617.373.3327
Fax: 617.373.8723

The College of Criminal Justice was established in 1967 as one of the first schools of its kind devoted to matters of crime and justice. Since its founding, the college has become a leading force in education, research, and policymaking in both the public and private sectors of the criminal justice field.

The College of Criminal Justice seeks to prepare students for professional and research careers in criminal justice, criminology, and related fields by applying multidisciplinary and comparative social science to understand, predict, and explain crime and contribute to the development of public policy. Using an active learning approach, the college seeks to develop its students intellectually and ethically, while providing them with a keen appreciation of the complexities of crime, and of the public and private efforts to make communities safer and ensure justice.

The world of criminal justice is much more than the police officer, corrections official, criminal defense lawyer, or security and loss prevention personnel. At the College of Criminal Justice, the boundaries of criminal justice have expanded beyond traditional views of the field to include emphases on law and justice, organizations and leadership, global criminology, and crime policy. Criminal justice education today is about more than the criminal; it involves understanding the victim and the community: repairing harm, reducing fear, rebuilding safe communities, and assuring justice in spirit and act.

The College of Criminal Justice has had a long-standing attachment and commitment to improving justice system agencies, including private security. The college actively engages external partners in an ongoing conversation about research, community service, and salient policy questions. Part of this dialogue is supported by an ongoing program of applied and social science research. Much of this research focuses on evaluating existing government crime-control programs and policies to determine whether they work, as well as inquiries about the etiology and prevention of crime. In addition, much of our research examines the unintended consequences of policy: institutionalized racism,
www.cj.neu.edu
exclusion of certain groups, and so forth. In every case, the research conducted at Northeastern is approached with ethical sensitivity and scientific rigor.

Criminal justice and criminology, as social sciences, began in the early part of the twentieth century. Nearly one hundred years old, the criminal justice field has blossomed in large part through the ingenuity of several notable scholars. The College of Criminal Justice is pleased to be home to many of the country's preeminent contemporary scholars. CCJ faculty members regularly present at scholarly conferences, national and international seminars, and to policymakers worldwide.

## Academic Progression Standards

Students are required to maintain the following overall grade-point average and minimum earned semester hours to advance to the next class standing and to graduate.

|  | Minimum GPA | Minimum Semester <br> Hours to Advance |
| :--- | :---: | :---: |
| Sophomore | 1.800 | 28 |
| Middler | 2.000 | 52 |
| Junior | 2.000 | 80 |
| Senior | 2.000 | 96 |
| To graduate | 2.000 | 132 |

## Graduation Requirements

Degree candidates must complete all prescribed work, a total of 132 semester hours of credit. Students are also urged to meet the requirements of the Department of Cooperative Education.

## Transfer Credit

A student transferring from another college or university must be in residence at Northeastern at least 32 of the final 40 semester hours to receive a degree.

## BS in Criminal Justice

## BREADTH COURSES FOR CRIMINAL JUSTICE

Computer Science
Complete the following course:
CS 1100
Computer Science 4 SH

## Mathematics

Complete the following course:
MATH $1215 \quad$ Mathematical Thinking
4 SH

## Psychology

Complete the following course:
PSYC 1101 Foundations of Psychology 4 SH
Sociology
Complete the following course:
SOCL 1101 Introduction to Sociology
4 SH
CRIMINAL JUSTICE SEQUENCE REQUIREMENT AND REQUIRED ELECTIVES OUTSIDE CRIMINAL JUSTICE
44 semester hours must be earned from the combination of the criminal justice sequence requirement and required electives outside criminal justice.

## Criminal Justice Sequence Requirement

Complete three courses from the same department, two of which must be at the 2000-level or above.

## Required Electives Outside Criminal Justice

Complete courses in departments outside criminal justice such that 44 semester hours are earned from the combination of these courses and the criminal justice sequence requirement.

## CRIMINAL JUSTICE MAJOR REQUIREMENTS

## Criminal Justice Core Requirements

Complete the following five courses:

| CRIM 1100 | Introduction to Criminal Justice | 4 SH |
| :--- | :--- | :--- |
| CRIM 2100 | Criminal Due Process | 4 SH |
| CRIM 2200 | Criminology | 4 SH |
| CRIM 3600 | Criminal Justice Research Methods | 4 SH |
| CRIM 3700 | Criminal Justice Statistics | 4 SH |

## Diversity

Complete the following course:
CRIM $1200 \quad$ Ethics, Values, and Diversity 4 SH

## CRIMINAL JUSTICE INTEGRATED LEARNING CORE

## Introduction to College

Complete the following course:
CRIM $1000 \quad$ College: An Introduction 1 SH

## Co-op Integration Seminar

Co-op students should complete the following three courses. Non-co-op students should complete one additional criminal justice elective with credit of at least 4 semester hours:

| CRIM 2000 | Co-op Integration Seminar 1 | 1 SH |
| :--- | :--- | :--- |
| CRIM 3000 | Co-op Integration Seminar 2 | 1 SH |
| CRIM 4000 | Co-op Integration Seminar 3 | 1 SH |

## Senior Capstone

Complete the following course:
CRIM $4949 \quad$ Senior Capstone Seminar 4 SH

## CRIMINAL JUSTICE ELECTIVES

## Survey Electives

Complete two courses from the following list:
CRIM $3100 \quad$ Criminal Law 4 SH

CRIM $3200 \quad$ Juvenile Justice 4 SH

| CRIM 3300 | Corrections | 4 SH |
| :--- | :--- | :--- |
| CRIM 3400 | Security | 4 SH |
| CRIM 3500 | Policing | 4 SH |

## System-Wide Elective

Complete one course from the following list:

| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| :--- | :--- | :--- |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4030 | Criminal Justice Organization and | 4 SH |

CRIM $4040 \quad$ Crime Prevention 4 SH

## Criminal Justice Open Electives

Complete four courses at the 4000-level or above:
CRIM 4001 to CRIM 4999
CRIMINAL JUSTICE CREDIT REQUIREMENTS Complete 60 credit hours in the major.

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
132 total semester hours required
Minimum 2.000 GPA required

## BS in Human Services and Criminal Justice

See page 138.

## BS/MS in Criminal Justice

## BREADTH COURSES FOR CRIMINAL JUSTICE

## Computer Science

Complete the following course:

| CS 1100 | Computer Science <br> and Its Applications | 4 SH |
| :---: | :---: | :---: |

## Mathematics

Complete the following course or a higher-level mathematics course:
MATH 1215 Mathematical Thinking 4 SH
Psychology
Complete the following course:
PSYC $1101 \quad$ Foundations of Psychology 4 SH

## Sociology

Complete the following course:
SOCL 1101 Introduction to Sociology 4 SH

## CRIMINAL JUSTICE SEQUENCE REQUIREMENT AND REQUIRED ELECTIVES OUTSIDE CRIMINAL JUSTICE <br> 44 semester hours must be earned from the combination of the criminal justice sequence requirement and required electives outside criminal justice.

## Criminal Justice Sequence Requirement

Complete three courses from the same department, two of which must be at the 2000-level or above.

## Required Electives Outside Criminal Justice

Complete courses in departments outside criminal justice such that 44 semester hours are earned from the combination of these courses and the criminal justice sequence requirement.

## CRIMINAL JUSTICE MAJOR REQUIREMENTS

Criminal Justice Core Requirements
Complete the following five courses:
CRIM $1100 \quad$ Introduction to Criminal Justice 4 SH
CRIM $2100 \quad$ Criminal Due Process 4 SH
CRIM 2200 Criminology
4 SH
CRIM $3600 \quad$ Criminal Justice Research Methods 4 SH
CRIM $3700 \quad$ Criminal Justice Statistics 4 SH

## Diversity

Complete the following course:
CRIM 1200 Ethics, Values, and Diversity

## CRIMINAL JUSTICE INTEGRATED LEARNING CORE

Introduction to College
Complete the following course:
CRIM 1000
College: An Introduction

## Co-op Integration Seminars

Co-op students should complete the following three courses. Non-co-op students should complete one additional criminal justice elective with credit of at least 4 semester hours.

| CRIM 2000 | Co-op Integration Seminar 1 | 1 SH |
| :--- | :--- | :--- |
| CRIM 3000 | Co-op Integration Seminar 2 | 1 SH |
| CRIM 4000 | Co-op Integration Seminar 3 | 1 SH |

## Senior Capstone

Complete the following course:
CRIM 4949 Senior Capstone Seminar
CRIMINAL JUSTICE ELECTIVES

## Survey Electives

| Complete two courses from the following list: |  |  |
| :--- | :--- | :--- |
| CRIM 3100 | Criminal Law | 4 SH |
| CRIM 3200 | Juvenile Justice | 4 SH |
| CRIM 3300 | Corrections | 4 SH |
| CRIM 3400 | Security | 4 SH |
| CRIM 3500 | Policing | 4 SH |

## System-Wide Electives

Complete one course from the following list:
CRIM $4010 \quad$ Gender, Crime, and Justice
4 SH
CRIM $4020 \quad$ Race, Crime, and Justice 4 SH
CRIM 4030
CRIM 4040

Criminal Justice Organization and
4 SH Management
Crime Prevention
4 SH

## CRIMINAL JUSTICE GRADUATE COURSES

## Required Graduate Courses

Complete the following four courses with corresponding labs, as indicated:

| CRIM 7200 | Criminology | 3 SH |
| :--- | :--- | :--- |
| CRIM 7202 | The Criminal Justice Process | 3 SH |
| CRIM 7204 | Research and Evaluation Methods | 3 SH |
| with CRIM 7205 | Lab for CRIM 7204 | 1 SH |
| CRIM 7206 | Statistical Analysis | 3 SH |
| with CRIM 7207 | Lab for CRIM 7206 | 1 SH |

## Law Elective

Complete one course from the following list:
CRIM 7208 Law and Society 3 SH

CRIM 7224 Law and Psychology 3 SH
CRIM 72323 SH
CRIM $7244 \quad$ Criminal Law and Procedure 3 SH

## Graduate Electives

Complete an additional 15 semester hours in criminal justice at the graduate level:
CRIM 7208 to CRIM 7996
CRIM 8400 to CRIM 8499

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

148 total semester hours required
Minimum 2.000 GPA required in undergraduate courses
Minimum 3.000 GPA required in graduate courses

## Minor in Criminal Justice

## REQUIRED COURSE

Complete the following course:
CRIM 1100 Introduction to Criminal Justice 4 SH
FOCUS
Complete either the administrative focus or the behavioral focus.
Note: Taking elective courses requires that the student have completed at least 56 semester hours toward the degree.

## Administrative Focus

Complete the following course:
CRIM $2100 \quad$ Criminal Due Process 4 SH
and complete three additional courses from the following list:

| CRIM 3100 | Criminal Law | 4 SH |
| :--- | :--- | :--- |
| CRIM 3200 | Juvenile Justice | 4 SH |
| CRIM 3300 | Corrections | 4 SH |


| CRIM 3400 | Security | 4 SH |
| :--- | :--- | :--- |
| CRIM 3500 | Policing | 4 SH |
| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4030 | Criminal Justice Organization and | 4 SH |
|  | $\quad$ Management |  |
| CRIM 4040 | Crime Prevention | 4 SH |
| CRIM 4110 | Legal Philosophy | 4 SH |
| CRIM 4120 | Courts and Sentencing | 4 SH |
| CRIM 4300 | Community-Based Corrections | 4 SH |
| CRIM 4310 | Correctional Intervention | 4 SH |
| CRIM 4400 | Security Management, Supervision | 4 SH |
| CRIM 4500 | Police Strategy | 4 SH |
| CRIM 4620 | Organized Crime | 4 SH |
| CRIM 4630 | Political Crime and Terrorism | 4 SH |
| CRIM 4640 | Corporate and White-Collar Crime | 4 SH |
| CRIM 4670 | Comparative Criminal Justice | 4 SH |
| CRIM 4710 | Law and Psychology | 4 SH |

## Behavioral Focus

Complete the following course:
CRIM $2200 \quad$ Criminology 4 SH
and complete three additional courses from the following list:

| CRIM 3200 | Juvenile Justice | 4 SH |
| :--- | :--- | :--- |
| CRIM 3300 | Corrections | 4 SH |
| CRIM 4010 | Gender, Crime, and Justice | 4 SH |
| CRIM 4020 | Race, Crime, and Justice | 4 SH |
| CRIM 4040 | Crime Prevention | 4 SH |
| CRIM 4300 | Community-Based Corrections | 4 SH |
| CRIM 4310 | Correctional Intervention | 4 SH |
| CRIM 4600 | Criminal Violence | 4 SH |
| CRIM 4610 | Youth Gangs | 4 SH |
| CRIM 4620 | Organized Crime | 4 SH |
| CRIM 4630 | Political Crime and Terrorism | 4 SH |
| CRIM 4640 | Corporate and White-Collar Crime | 4 SH |
| CRIM 4650 | Victims of Crime | 4 SH |
| CRIM 4660 | Communities and Crime | 4 SH |
| CRIM 4670 | Comparative Criminal Justice | 4 SH |
| CRIM 4700 | Psychology of Crime | 4 SH |
| CRIM 4710 | Law and Psychology | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## David E. Luzzi, PhD, Professor and Dean

Hameed Metghalchi, ScD, Senior Associate Dean
Richard J. Scranton, SM, Associate Dean for Undergraduate
Programs
Yaman Yener, PhD, Associate Dean for Research and Graduate Studies
Khaled Bugrara, PhD, Director of Master of Science in Information Systems Program
Ahmed A. Busnaina, PhD, Director of the Center for High-Rate Nanomanufacturing, Director of the Center for Nano- and Microcontamination Control
Richard Harris, BS, Director of Multicultural Engineering
Vincent G. Harris, PhD, Director of the Center for Microwave Magnetic Materials and Integrated Circuits
George F. Kent, MBA, Director of the School of Engineering Technology
Lisa Koch, PhD, Assistant Dean for Educational and Computer Technology
Candace A. Martel, MEd, Director of Engineering Student Services
David Navick, PhD, Associate Dean for Engineering Enrollment, Information Systems and Services
Deborah A. Northall, Director of Administration and Finance
Peter O'Reilly, PhD, Director of Master of Science in
Telecommunication Systems Management Program
Rachelle Reisberg, MS, Director of Women in Engineering
Albert Sacco Jr., PhD, Director of the Center for Advanced Microgravity Materials Processing
Michael B. Silevitch, PhD, Director of the Bernard M. Gordon Center for Subsurface Sensing and Imaging Systems, Codirector of the Center for Awareness and Localization of Explosive-Related Threats

Office: 230 Snell Engineering Center
Phone: 617.373.2152
Fax: 617.373.8504

The mission of the College of Engineering is to provide a teaching, learning, and research environment that results in the highest-quality education for our students. Consistent with our goal of providing the highest-quality, practice-oriented program, the College of Engineering seeks to prepare students to contribute to the accumulation and application of technical knowledge. The college further seeks to help students master the fundamental mathematical and scientific principles underlying a particular
branch of engineering; develop and demonstrate competence in analysis and design appropriate to an engineering specialization; reason clearly and communicate effectively; and recognize the need to continue professional development.

Through laboratory exercises, senior design projects, professional association activities, and cooperative work assignments, students put theory into practice and clarify their professional goals.

The college offers a Bachelor of Science degree with specializations in chemical, civil, computer, electrical, industrial, and mechanical engineering. The five-year Bachelor of Science degree program, which includes eighteen months of cooperative education work experience, is the standard and most popular program. Four-year programs with and without co-op experience are also available.

The college encourages students to study the arts, sciences, business, and other areas outside of engineering, for they provide an awareness of the social, economic, political, aesthetic, and philosophical influences that shape the world in which graduates will practice their professions. Students may complete a minor in areas such as business, computer science, biomedical engineering, math, or music. In many cases, the minor can be completed without course overloads.

In addition to a full array of University services, special advising and other support services (including tutoring) are provided. Students may qualify to participate in honors sections of many courses. Active student chapters of many national professional engineering organizations and honor societies are supported by the college as an enriching addition to academic studies and co-op experience.

The Bachelor of Science degree programs with specification in chemical, civil, electrical, industrial, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410.347.7700.

## Bachelor of Science/Master of Science Joint-Degree Program

The Departments of Electrical and Computer Engineering, Mechanical and Industrial Engineering, and Civil and Environmental Engineering offer programs leading to both the bachelor's and master's degrees in five years. All students begin with the common first-year engineering program. Upon successful completion, students may petition to enter the BS/MS Program. Degree candidates must maintain a 3.400 cumulative GPA, carry extra courses, and reduce the number of cooperative education semesters to complete the course requirements.

## Academic Standards

## ACADEMIC PROGRESSION STANDARDS

In addition to meeting University progression standards, it is expected that full-time engineering students enroll in four courses with appropriate labs and successfully complete at least 12 semester hours each academic semester with an acceptable GPA as noted below. Any exceptions to the course load requirement must be approved by the student's academic advisor, in writing, prior to the start of each semester.

## GPA REQUIREMENTS FOR GRADUATION

A minimum cumulative GPA requirement of 2.000 in major (department) courses and a minimum cumulative GPA requirement of 2.000 overall is required for graduation.

## CRITERIA FOR ACADEMIC PROBATION

Full-time students in the College of Engineering will be placed on academic probation effective for the following academic semester for any of the reasons noted below:

## First-year Students:

- Not maintaining an overall cumulative GPA of at least 1.800 or not earning at least 24 semester hours at the end of the two semesters of the first-year curriculum, or
- Not earning at least 12 semester hours in the second academic semester.


## Upperclass and Transfer Students:

- Not earning at least 12 semester hours in the full semester just completed, or
- Not maintaining an overall cumulative GPA of at least 2.000 at the end of each full academic semester, or
- Not maintaining a GPA of at least 2.000 in major at the end of the fourth full academic semester of the curriculum and at the end of each full academic semester thereafter, or
- Not maintaining satisfactory progress through the curriculum by:
- Accumulating three outstanding course deficiencies (grades of F, I, W, NE, U, * or missing grades), or
- Earning a current full-semester GPA of 1.600 or lower, or
- Not following a program of study approved by the student's academic advisor.

A notation of the academic probation action will appear on the internal record but not on the permanent transcript.

## CRITERIA FOR ACADEMIC DISMISSAL

Full-time students on probation in the College of Engineering are eligible for academic dismissal from the University for any of the reasons noted below:

- Earning less than a 1.800 semester GPA in a full academic semester
- Completing fewer than 12 semester hours in a full academic semester
- Not following a program of study approved by the student's academic advisor
- Remaining on academic probation after two full academic semesters

Notation of this academic dismissal will appear on the permanent transcript.

## GRADUATION REQUIREMENTS

The college reserves the right to amend programs, courses, and degree requirements to fulfill its educational responsibility to respond to relevant changes in the field.

Students must complete all of the requirements in the degree program in which they are candidates. Degree requirements are based upon the year of graduation, determined by the date of entry or reentry into the College of Engineering. Degree requirements and the year of graduation for a degree candidate who fails to make normal academic progress will be subject to review and possible change.

## INTERDISCIPLINARY MINOR

## Materials Science and Engineering

The study of materials science and engineering has spurred breakthroughs in applications ranging from artificial limbs and organs, to space travel vehicles, to personal MP3 players. For example, the discovery of buckyballs and carbon nanotubes has led to the development of an unprecedented reduction in size of prototype electronic components and points the way to tomorrow's electronic technologies. Porous nanostructures of biocompatible materials are studied for targeted drug delivery within the body. The integration of polymers and semiconductors is used to create efficient, usable solar cells to reduce our dependence on fossil fuels. There are many more examples of both existing technologies and current research areas involving materials science and engineering that impact everyday life both today and in the future.

The minor in materials science and engineering is open to all students of the College of Engineering whose science and technical interests involve the design, processing, and optimization of engineering materials. Since the materials interests may vary across the engineering disciplines, the minor is composed of an interdisciplinary selection of courses that offer a high degree of flexibility to the student. The fundamental goals of the program are to offer the students a broad interdisciplinary program that includes a basic background in the relevant aspects of materials science and the engineering applications of materials. The objectives are to serve the needs of the chemical, civil, electrical, and mechanical engineering departments in providing a vehicle to expose students to materials science and engineering. Particular focus areas include: electronic materials and processing for device
applications; strength, wear, and corrosion-resistant coatings; molecular-level design of thin films and nanostructures; polymers and biomedical applications; and steels, concretes, and spacebased structures.

## Minor in Materials Science and Engineering

## REQUIRED COURSES

Complete the following course:
ME 2340 Introduction to Materials Science 4 SH and complete one additional course from the following list with corresponding lab, as indicated:

| CIVE 2260 | Civil Engineering Materials | 3 SH |
| :--- | :--- | :--- |
| with CIVE 2261 | Materials and Measurements Lab | 2 SH |
| EECE 3392 | Electronic Materials | 4 SH |

## ELECTIVES AND CAPSTONE DESIGN

Complete two courses from the following disciplines, and complete 4 semester hours of capstone design (or complete 4 semester hours of elective course work in place of the capstone design project):

## Electrical and Computer Engineering

| EECE 4606 | Micro- and Nanofabrication | 4 SH |
| :--- | :--- | :--- |
| ENGR 4608 | Nanotechnology in Engineering | 4 SH |

## Chemical Engineering

| CHME 4634 | Nanomaterials: Thin Films and |
| :--- | :---: |
|  | Structures |
| ENGR 4608 | Nanotechnology in Engineering |

Mechanical and Industrial Engineering
ME 4640 Mechanical Behavior and Processing

## Chemistry and Chemical Biology

$\begin{array}{ll}\text { CHEM } 3501 & \text { Inorganic Chemistry } \\ \text { CHEM 5687 } & \text { Principles of Solid State Chemistry }\end{array}$
Capstone Design
CHME 4703 Chemical Process Design 2 SH
EECE $4790 \quad$ Electrical and Computer Engineering Capstone 1
MEIE 4702 Capstone Design 2

## GPA REQUIREMENT

2.000 GPA required in the minor
www.che.neu.edu

Laura H. Lewis, PhD
Cabot Professor and Chair

Office: 342 Snell Engineering Center
Phone: 617.373.2989
Fax: 617.373.2991

The chemical engineering program offers students a broad education built on fundamentals in science, mathematics, and engineering, which are then applied to a variety of contemporary problems using modern tools, such as computational software and computer-aided design. Chemical engineers have traditionally been employed in chemical, petrochemical, agricultural chemicals, pulp and paper, plastics, cosmetics, and textiles industries and in consulting and design firms. Today, chemical engineers also play an integral role in emerging biological and advanced materials fields, including nanotechnology. For example, chemical engineers are creating new materials needed for space exploration, alternative energy sources, and faster, self-powered computer chips. In biotechnology and bioengineering, chemical engineers are working to understand human diseases, developing new therapies and drug delivery systems, and producing new medicines through cell culture techniques. Chemical engineers employ nanotechnology to revolutionize sensors, security systems, and medical diagnostics and treatments. In addition to creating important products, chemical engineers are also involved in protecting our environment by exploring ways to reduce acid rain and smog, to recycle and reduce wastes, to develop new sources of environmentally clean energy, and to design inherently safe, efficient, and "green" processes. The role of chemical engineers is to develop new products and to design the processes while reducing costs, increasing production, and improving the quality and safety of new products.

The educational objectives of the chemical engineering program are that all students will develop and apply: (1) a fundamental knowledge and understanding of the underlying science, mathematics, and engineering subjects needed to function effectively and efficiently in the many fields of chemical engineering practice; (2) an ability to identify problems, to identify, acquire, and critically analyze needed information and data, to draw appropriate conclusions, and to make decisions based on those conclusions; (3) interpersonal and communicative skills to function effectively in a diverse workplace and work confidently and effectively within intra- and interdisciplinary work groups; and (4) an ability to incorporate practice-based and information-based knowledge of contemporary societal issues and ethical and professional responsibilities as part of engineering solutions and business activities.

The faculty of the chemical engineering program is committed to providing a practice-oriented education through active learning and by drawing connections between classroom learning and co-op experiences. The educational curriculum provides fundamentals in mathematics, physical sciences, and engineering science as well as real-world design and laboratory experiences. Through the University's general education requirements, students gain awareness of the impact of engineering decisions in a broader societal and ethical context. Cooperative education offers students the opportunity to integrate practical workplace knowledge with classroom learning so the educational experiences are synergistic and deepen the learning process. The chemical engineering community encourages professional development through active participation and leadership in student organizations, professional societies, and departmental activities. As a result, the chemical engineering program prepares successful students for industrial careers, graduate programs, or professional medical, law, and business schools.

Through faculty expertise and scholarship, a rigorous set of academic courses, and real-world cooperative education experiences, the chemical engineering program seeks to enable students to identify and solve chemical engineering problems; understand, analyze, and design chemical processes; be proficient in the use of modern engineering tools; be proficient in oral and written communication of their work and ideas; become independent learners and workers; participate effectively in intradisciplinary and interdisciplinary groups; design and perform laboratory experiments to acquire data and evaluate theories; understand the environmental and safety impact of their work as chemical engineers; understand the global and societal impact of engineering problems and solutions; understand professional behavior, culture, expectations, and contemporary issues; conduct themselves in accordance with the highest ethical and professional standards; and be prepared for lifelong learning and continuing education.

The chemical engineering curriculum shown below is periodically evaluated and revised to ensure that graduates of the program are given every opportunity for future success as professional chemical engineers and are prepared for graduate or professional school.

## BSCHE-Bachelor of Science in Chemical Engineering

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 55 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:
BIOL $1111 \quad$ General Biology 1 SH
with BIOL 1112 Lab for BIOL 11111 SH
CHEM $1151 \quad 4$ SH

CHEM $2311 \quad$ Organic Chemistry 1 SH
with CHEM 2312 Lab for CHEM 23111 SH
or CHEM 2315 Organic Chemistry 1 for Chemistry 4 SH Majors
with CHEM 2316 Lab for CHEM 2315 SH
CHEM 2313 Organic Chemistry 2 SH
with CHEM 2314 Lab for CHEM 23131 SH
or CHEM 2317 Organic Chemistry 2 for Chemistry 4 SH Majors
with CHEM 2318 Lab for CHEM 23172 SH
CHEM $3403 \quad$ Physical Chemistry 2 SH
with CHEM 3404 Lab for CHEM 34031 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH

MATH $1342 \quad$ Calculus 2 for Science and 4 SH
Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH

MATH 2341 Differential Equations and Linear 4 SH

PHYS $1151 \quad$ Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS $1151 \quad 1$ SH
PHYS $1155 \quad$ Physics for Engineering 24 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Advanced Chemistry Elective

Complete one advanced chemistry elective from the following list:
BIOL 2313 Plant Biology 4 SH
BIOL 2323 Biochemistry 4 SH
CHEM 2321 Analytical Chemistry 4 SH
CHEM 2331 Bioanalytical Chemistry 4 SH
CHEM 3421 Biophysical Chemistry 4 SH
CHEM 3501 Inorganic Chemistry 4 SH
CHEM 5637 Foundations of Spectroscopy 3 SH
ENVR $2310 \quad 4 \mathrm{SH}$
ENVR $3410 \quad 4$ SH
ENVR $5282 \quad 4$ SH
PHSC 2320 Biochemistry 4 SH
PHSC $3412 \quad$ Pharmaceutics 2 SH
TOXC 5576 Experimental Toxicology 3 SH

## Further Credit

1 semester hour from the following course counts toward the mathematics/science requirement:
GE 1111 Engineering Problem Solving and 4 SH

## ENGINEERING REQUIREMENT

Complete 49 semester hours in engineering as indicated below.

## Required Engineering

Complete each of the following courses with corresponding labs, as indicated:
CHME $2308 \quad$ Conservation Principles in Chemical 4 SH Engineering
CHME $2310 \quad$ Transport Processes 14 SH
with CHME 2311 Lab for CHME 23101 SH

| CHME 2320 | Chemical Engineering <br> Thermodynamics 1 | 4 SH |
| :---: | :---: | :---: |
| CHME 3312 | Transport Processes 2 and Separations | 4 SH |
| with CHME 3313 | Lab for CHME 3312 | 1 SH |
| CHME 3322 | Chemical Engineering | 4 SH |
|  | Thermodynamics 2 |  |
| CHME 3330 | Chemical Engineering Process | 4 SH |
|  | Analysis |  |
| CHME 4510 | Chemical Engineering Kinetics | 4 SH |
| CHME 4512 | Chemical Engineering Process Control | 4 SH |
| CHME 4701 | Chemical Process Design 1 | 4 SH |
| with CHME 4702 | Lab for CHME 4701 | 1 SH |
| CHME 4703 | Chemical Process Design 2 | 3 SH |
| with CHME 4704 | Lab for CHME 4703 | 2 SH |

## Further Credit

3 semester hours from the following course count toward the engineering requirement:
GE $1110 \quad$ Engineering Design 4 SH
2 semester hours from the following course count toward the engineering requirement:
GE $1111 \quad$ Engineering Problem Solving and 4 SH

## PROFESSIONAL DEVELOPMENT REQUIREMENT

Complete 5 semester hours in professional development as indicated below.

## Professional Development

Complete the following three courses:
GE $1000 \quad \begin{gathered}\text { Introduction to the Study of } \\ \text { Engineering }\end{gathered}$
CHME 2000 Introduction to Engineering Co-op 1 SH

CHME $3000 \quad$ Professional Issues in Engineering 1 SH

## Further Credit

1 semester hour from each of the following courses counts toward the professional development requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  | Computation |  |

## ADDITIONAL NU CORE COURSES

Complete 16 semester hours in NU Core course work as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:

| ENGL 1111 | College Writing | 4 SH |
| :--- | :--- | :--- |
| ENGL 3302 | Advanced Writing in the Technical | 4 SH |
|  | Professions |  |

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

## Social Science Level 1

Complete 4 semester hours from the NU Core social science level 1 domain, as described on page 26.

## GENERAL ELECTIVES

Complete four 4-SH-equivalent academic, nonremedial, nonrepetitive courses.

## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

## MAJOR GPA REQUIREMENT

Minimum 2.000 required in all chemical engineering courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
141 total semester hours required
Minimum 2.000 GPA required

## BSCHE in Chemical Engineering and Physics

For degree requirements, please visit the myNEU Web Portal (www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Minor in Biochemical Engineering

## REQUIREMENTS FOR NON-CHEMICAL

 ENGINEERING MAJORSStudents with majors other than chemical engineering should complete the requirements below.

## Required Breadth Courses

Complete the following five courses, with corresponding labs, as indicated:

| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| :--- | :--- | :--- |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |
| MATH 1241 | Calculus 1 | 4 SH |
| or MATH 1341 | Calculus 1 for Science and | 4 SH |
| MATH 1242 | Engineering <br> Calculus 2 <br> or MATH 1342 <br> Calculus 2 for Science and <br> Engineering | 4 SH |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 SH |
| or MATH 2351 | Ordinary Differential Equations | 4 SH |

## Required Chemical Engineering Courses

Complete the following four courses:

| CHME 2308 | Conservation Principles in Chemical <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| CHME 2310 | Transport Processes 1 | 4 SH |
| CHME 3312 | Transport Processes 2 and Separations | 4 SH |
| CHME 5630 | Biochemical Engineering | 4 SH |

Capstone
Complete the following course:
CHME $4703 \quad$ Chemical Process Design 2 SH

## REQUIREMENTS FOR CHEMICAL ENGINEERING MAJORS

Chemical engineering majors should complete the requirements below.

## Required Breadth Courses

Complete the following eight courses, with corresponding labs, as indicated:

| BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 2301 | Genetics and Molecular Biology | 4 SH |
| with BIOL 2302 | Lab for BIOL 2301 | 1 SH |
| BIOL 2323 | Biochemistry | 4 SH |
| CHEM 2311 | Organic Chemistry 1 | 4 SH |
| with CHEM 2312 | Lab for CHEM 2311 | 1 SH |
| CHEM 2313 | Organic Chemistry 2 | 4 SH |
| with CHEM 2314 | Lab for CHEM 2313 | 1 SH |
| MATH 1241 | Calculus 1 <br> or MATH 1341 <br> Calculus 1 for Science and <br> Engineering | 4 SH |
| MATH 1242 | Calculus 2 |  |
| or MATH 1342 | Calculus 2 for Science and <br> Engineering | 4 SH |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 SH |
| or MATH 2351 | Ordinary Differential Equations | 4 SH |

Required Chemical Engineering Courses
Complete the following four courses:
CHME 2308 Conservation Principles in Chemical
$\begin{array}{lll}\text { CHME 2310 } & \text { Transport Processes 1 } & 4 \text { SH } \\ \text { CHME } 3312 & \text { Transport Processes } 2 \text { and Separations } & 4 \text { SH }\end{array}$
CHME $5630 \quad$ Biochemical Engineering 4 SH

## Capstone

Complete the following course:
CHME $4703 \quad$ Chemical Process Design 2
GPA REQUIREMENT
2.000 GPA required in the minor

CIVIL AND ENVIRONMENTAL ENGINEERING
www.civ.neu.edu

Thomas C. Sheahan, ScD, PE
Professor and Acting Chair

Office: 400 Snell Engineering Center
Phone: 617.373.2444
Fax: 617.373.4419

Civil engineers judiciously apply their knowledge of mathematics and physical sciences to improve and protect the environment and to provide facilities and structures for community living, industry, and transportation. Civil engineering encompasses several disciplines, including structural engineering, environmental engineering, transportation planning and engineering, and geotechnical engineering. Civil engineers supervise the construction of bridges, tunnels, buildings, dams, and aqueducts. They also plan, design, construct, and manage highways, railroads, canals, and airports; regulate rivers and control floods; and design and build systems for water distribution, wastewater treatment, waste disposal, and environmental remediation.

The civil engineering program has four educational objectives. The first is that our students gain an understanding of the natural and cultural world. Mathematics, physics, and chemistry are the foundation of civil engineering. Such a foundation is designed to enable students to properly understand and apply engineering principles and makes the Northeastern education one that can keep pace with the advances in this dynamic field. Likewise, it is important for students to understand the historical and cultural context in which engineering takes place and to understand the social and environmental impacts of engineering projects.

The second objective is that our students become technically prepared for engineering practice. Students are exposed to a common base of knowledge in the engineering sciences, including mechanics and environmental science. In more advanced courses, students have an opportunity to learn to analyze and design building frames and bridges, water and wastewater treatment systems, highways and traffic systems, hydraulic systems, earth dams, building foundations, and construction management systems. Our program is designed to give students proficiency in at least four areas of civil engineering.

The third program objective is that our students develop skills in critical thinking, communication, information literacy, and aesthetics. These subjects are integrated into courses throughout the program. Particular emphasis is placed on the importance of effective writing and public speaking.

The fourth program objective is that our students develop a personal and professional ethic-that is, an understanding of the profession, its ethical codes, history, contemporary issues, and the need for lifelong learning. Course work, cooperative education,
and participation in the activities of the award-winning student chapter of the American Society of Civil Engineers help students meet this goal.

The civil engineering program is designed to provide students with a broad education appropriate for a variety of career choices and lifelong learning. Experience tells us that civil engineering graduates will enter almost every field imaginable. The knowledge and skills acquired-understanding science, critical thinking, effective communication, and understanding the social context, among them-form an excellent foundation for a host of careers, as well as for a fulfilling life outside the world of work. The civil engineering program has been designed with five general electives that permit students to explore or acquire further depth in other fields of interest. Students can use these electives to earn a minor in business, architectural history, music, computer science, or any number of other fields.

The co-op program parallels the academic program in level of responsibility and sophistication. A beginning job might involve layout at a construction site or laboratory testing; in senior-level co-op assignments, students are often working alongside engineers on design teams.

## BSCE—Bachelor of Science in Civil Engineering

MATHEMATICS/SCIENCE REQUIREMENT
Complete 34 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses, with corresponding labs, as indicated:
CHEM 1151 General Chemistry for Engineers 4 SH
or CHEM 1211 General Chemistry 14 SH
or CHEM 1214 General Chemistry 24 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and $\quad 4$ SH

MATH $2321 \quad$ Calculus 3 for Science and 4 SH
Engineering
MATH 2341 Differential Equations and Linear
4 SH
Algebra for Engineering
PHYS $1151 \quad$ Physics for Engineering 14 SH
with PHYS 1152 Lab for PHYS 11511 SH
or PHYS 1161 Physics 14 SH
with PHYS 1162 Lab for PHYS $1161 \quad 1$ SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH
or PHYS 1165 Physics 24 SH
with PHYS 1166 Lab for PHYS 11651 SH

## Further Credit

3 semester hours from the following course count toward the mathematics/science requirement:
CIVE $3464 \quad \begin{gathered}\text { Probability and Engineering Economy } \\ \text { for Civil Engineering }\end{gathered}$

1 semester hour from the following course counts toward the mathematics/science requirement:
GE 1111

> Engineering Problem Solving and
> Computation

4 SH

## ENGINEERING REQUIREMENT

Complete 57 semester hours in engineering as indicated below.

## Required Engineering

Complete each of the following courses, with corresponding labs, as indicated:
CIVE $2221 \quad$ Statics and Strength of Materials 4 SH
CIVE $2260 \quad$ Civil Engineering Materials 3 SH
with CIVE 2261 Materials and Measurements Lab 2 SH
CIVE 2320 Structural Analysis 1 SH
CIVE 2324 Reinforced Concrete Design 4 SH
CIVE 2331 Fluid Mechanics 4 SH
CIVE 2334 Environmental Engineering 1 SH
CIVE 2340 Soil Mechanics 4 SH
with CIVE 2341 Lab for CIVE 23401 SH

## Senior Design Project

Complete one of the following courses:

| CIVE 4765 | Senior Design Project- <br> Environmental | 5 SH |
| :--- | :--- | :--- |
| CIVE 4766 | Senior Design Project—Geotechnical | 5 SH |
| CIVE 4767 | Senior Design Project—Structural | 5 SH |
| CIVE 4768 | Senior Design Project— | 5 SH |
|  | $\quad$ Transportation |  |

## Civil Engineering Project Elective

Complete one of the following courses:

| CIVE 4536 | Hydrologic Engineering | 4 SH |
| :--- | :--- | :--- |
| CIVE 4542 | Foundation Engineering | 4 SH |
| CIVE 4554 | Highway Engineering | 4 SH |

## Civil Engineering Technical Electives

Complete 12 semester hours from the following list:

| CIVE 3425 | Steel Design | 4 SH |
| :--- | :--- | :--- |
| CIVE 3522 | Structural Analysis 2 | 4 SH |
| CIVE 4534 | Environmental Engineering 2 | 3 SH |
| CIVE 4536 | Hydrologic Engineering | 4 SH |
| CIVE 4542 | Foundation Engineering | 4 SH |
| CIVE 4554 | Highway Engineering | 4 SH |
| CIVE 4556 | Traffic Engineering | 4 SH |
| CIVE 4566 | Sustainable Design of Buildings and | 4 SH |
|  | $\quad$ Urban Transportation Systems: |  |
|  | $\quad$ U.S./European Perspectives |  |
| CIVE 4575 | Construction Management | 3 SH |
| CIVE 5321 | Geoenvironmental Engineering | 4 SH |

## Further Credit

3 semester hours from the following course count toward the engineering requirement:
GE $1110 \quad$ Engineering Design 4 SH

2 semester hours from the following course count toward the engineering requirement:
GE 1111 Engineering Problem Solving and 4 SH

1 semester hour from the following course counts toward the engineering requirement:
CIVE 3464 Probability and Engineering Economy 4 SH

PROFESSIONAL DEVELOPMENT REQUIREMENT
Complete 5 semester hours in professional development as indicated below.

## Professional Development

Complete the following three courses:
GE 1000
Introduction to the Study of
Engineering
CIVE 2000 Introduction to Engineering Co-op Education
CIVE $3000 \quad$ Professional Issues in Engineering
1 SH

1 SH
1 SH

## Further Credit

1 semester hour from each of the following courses counts toward the professional development requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  | Computation |  |

## ADDITIONAL NU CORE COURSES/SCIENCE <br> ELECTIVE

Complete 20 semester hours in NU Core course work and science elective as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:
ENGL $1111 \quad$ College Writing 4 SH
ENGL 3302 Advanced Writing in the Technical 4 SH Professions

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

## Social Science Level 1—Macroeconomics or Microeconomics

Complete one of the following courses, thus satisfying the NU
Core social science level 1 domain requirement:
ECON $1115 \quad$ Principles of Macroeconomics 4 SH
ECON $1116 \quad$ Principles of Microeconomics 4 SH

## Science Elective

Complete one of the following courses:
BIOL 1111 General Biology 1
4 SH
BIOL $1121 \quad$ Basic Microbiology 4 SH
BIOL $1151 \quad$ Introduction to Marine Biology 4 SH
CHEM $2311 \quad$ Organic Chemistry 1 SH
CHEM 2321 Analytical Chemistry 4 SH
CHEM $3401 \quad$ Physical Chemistry 1 SH
ENVR $1200 \quad$ Dynamic Earth 4 SH
ENVR $2310 \quad$ Earth Materials 4 SH
ENVR 3302 Introduction to Remote Sensing 4 SH
ENVR $3400 \quad$ Field Geology 4 SH
ENVR $4505 \quad$ Wetlands 4 SH
ENVR 5260 Geographical Information Systems

| ENVR 5280 | Groundwater Modeling | 4 SH |
| :--- | :--- | :--- |
| ENVR 5282 | Groundwater Geochemistry | 4 SH |
| ENVR 5290 | Engineering Geology | 4 SH |
| PHYS 2303 | Modern Physics | 4 SH |
| PHYS 3601 | Classical Dynamics | 4 SH |
| PHYS 3602 | Electricity and Magnetism | 4 SH |

## GENERAL ELECTIVES

Complete five 4-SH-equivalent academic, nonremedial, nonrepetitive courses.

RESIDENCY REQUIREMENT
32 of the final 40 semester hours must be taken at Northeastern University.

MAJOR GPA REQUIREMENT
2.000 minimum GPA required in CIVE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

135 total semester hours required
Minimum 2.000 GPA required

## ELECTRICAL AND COMPUTER ENGINEERING

www.ece.neu.edu

Ali Abur, PhD
Professor and Chair

Office: 407 Dana Research Center
Phone: 617.373.3051
Fax: 617.373.4431
T he Department of Electrical and Computer Engineering offers two distinct Bachelor of Science programs: Bachelor of Science in electrical engineering (BSEE) and Bachelor of Science in computer engineering (BSCompE). An integrated dual major is available in electrical and computer engineering for students who complete the requirements of both majors. In addition, a minor in electrical engineering, a minor in computer engineering, and a minor in biomedical engineering are available to qualified students throughout the University, including majors within the department.

Successful engineers need to organize and adapt information to solve problems. They also must work effectively in teams and communicate well. Therefore, the goal of the electrical engineering and computer engineering programs is to help students develop these skills and provide the appropriate technical
background for a successful career. The objectives of the Bachelor of Science programs are that every student will develop and be able to apply in an engineering context: (1) mathematical, scientific, computational, and experiential knowledge and skills; (2) the technical skills necessary for engineering practice; (3) the communications and interpersonal skills necessary as engineering professionals; (4) a personal and professional ethic appropriate to the practice of engineering; and (5) an awareness of the social, cultural, and historical context of engineering solutions.

The curricula are continuously assessed to ensure that graduates can achieve these goals and go on to succeed as professional electrical or computer engineers. The Bachelor of Science programs allow students sufficient flexibility within the standard eight academic semesters to earn a minor in nearly any department in the University. Typical minors might include electrical engineering, computer engineering, physics, math, computer science, or business, but students might also organize their course of study to earn a minor in economics, English, or music.

The academic program is supported by extensive laboratory facilities for study and experimentation in computing, circuit analysis, electronics, digital systems, microwaves, control systems, semiconductor processing, VLSI design, and digital signal processing. Students have access to state-of-the-art computing facilities, including numerous Linux-based workstations, and Windows-based personal computers, all connected to the Internet. Many courses are taught in one of the four computer-based teaching classrooms, where students work online and practice the theory presented in lecture while still in the classroom.

More than 90 percent of department undergraduates take advantage of the cooperative education program. During the cooperative work phase of the program, the students' levels of responsibility grow as they gain theoretical and technical knowledge through academic work. A sophomore might begin cooperative work experience as an engineering assistant and progress by the senior year to a position with responsibilities similar to those of entry-level engineers.

A senior-year design course caps the education by drawing on everything learned previously. Teams of students propose, design, and build a functioning electrical or computer engineering system-just as they might in actual practice.

## Electrical Engineering

The components of the Information Age-global communication systems, computers and computer chips, and the software that runs them, as well as pacemakers, magnetic resonance imaging, and interplanetary space missions-are possible because of the efforts of electrical engineers. Today, electrical engineers are developing concepts and working to translate these ideas into the next generation of products, from computers and safe, energy-efficient vehicles, to radar that can detect unexploded land mines from the air, to microrobots that diagnose disease from inside the body.

Many electrical engineers work in the traditional areas of communications, computation, and control, and components required to realize such systems. They are involved in design and product development, testing and quality control, sales and marketing, and manufacturing. Others use their problem-solving skills in diverse areas such as bioengineering, health care, electronic music, meteorology, and experimental psychology. Some graduates draw on their electrical engineering backgrounds to launch successful careers as physicians, financial analysts, attorneys, and entrepreneurs.

As specified below, the BSEE degree requires a sequence of core courses and advanced study in one or more technical elective areas: electronic circuits and devices; signals and systems; fields, waves, and optics; power engineering; or computer engineering. General electives and electives in the arts and humanities and social sciences are also required.

## BSEE-Bachelor of Science in Electrical Engineering

## ENGINEERING CATEGORICAL REQUIREMENT

Students must complete a minimum of semester hours in the categories of math/science and engineering topics. Completing all courses in the prescribed curriculum satisfies these requirements without any additional consideration. However, any student with transfer credit or course substitutions must meet with an academic advisor to plan appropriate course work to assure that these requirements are fully satisfied.

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 35 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:
CHEM $1151 \quad$ General Chemistry for Engineers 4 SH

MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH

MATH 2341 Differential Equations and Linear 4 SH
Algebra for Engineering
PHYS $1151 \quad$ Physics for Engineering 1 SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Further Credit

2 semester hours from the following course count toward the mathematics/science requirement:
EECE 3468 Noise and Stochastic Processes
4 SH

2 semester hours from the following lecture/lab combination count toward the mathematics/science requirement:

| CS 1500 | Algorithms and Data Structures for <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| with CS 1501 | Lab for CS 1500 | 1 SH |

1 semester hour from the following course counts toward the mathematics/science requirement:

GE $1111 \quad$| Engineering Problem Solving and |
| :---: |
| Computation |

## ENGINEERING REQUIREMENT

Complete 59 semester hours in engineering as indicated below:
EECE 2322 Digital Logic Design 4 SH
with EECE 2323 Lab for EECE 23221 SH
EECE 2410 Circuits 4 SH
with EECE 2411 Introduction to Electrical and 1 SH Computer Engineering Laboratory
EECE 2412 Electronics 14 SH
with EECE 2413 Lab for EECE 24121 SH
EECE 3410 Electronics 24 SH
EECE 3440 Electromagnetic Fields and Waves 4 SH
with EECE 3441 Lab for EECE 34401 SH
EECE 3464 Linear Systems 4 SH
EECE 4572 Communications Systems 4 SH
EECE $4790 \quad$ Electrical and Computer Engineering 4 SH
Capstone 1
EECE $4792 \quad$ Electrical and Computer Engineering 4 SH Capstone 2

## Electrical Engineering Technical Electives

Complete 12 semester hours from the following list:
EECE 3324 to EECE 3392
EECE 4512 to EECE 4538
EECE 4574 to EECE 4698
EECE 5150 to EECE 5686

## Further Credit

3 semester hours from the following course count toward the engineering requirement:
GE $1110 \quad$ Engineering Design 4 SH
2 semester hours from each of the following courses count toward the engineering requirement:

| EECE 3468 | Noise and Stochastic Processes | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  | Computation |  |

PROFESSIONAL DEVELOPMENT REQUIREMENT
Complete 8 semester hours in professional development as indicated below.

## Professional Development

Complete the following three courses:
GE 1000
Introduction to the Study of
Engineering
Introduction to Engineering Co-op Education
EECE $3000 \quad$ Professional Issues in Engineering

## Further Credit

3 semester hours from the following lecture/lab combination count toward the professional development requirement:

| CS 1500 | Algorithms and Data Structures for <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| with CS 1501 | Lab for CS 1500 | 1 SH |

1 semester hour from each of the following courses counts toward the professional development requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  |  |  |
|  |  |  |

## ADDITIONAL NU CORE COURSES

Complete 16 semester hours in NU Core course work as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:
ENGL $1111 \quad$ College Writing 4 SH
ENGL 3302 Advanced Writing in the Technical 4 SH Professions

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

## Social Science Level 1

Complete 4 semester hours from the NU Core social science level 1 domain, as described on page 26.

GENERAL ELECTIVES
Complete five 4-SH-equivalent academic, nonremedial, nonrepetitive courses.

## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

MAJOR GPA REQUIREMENT
2.000 minimum GPA required in EECE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
138 total semester hours required
Minimum 2.000 GPA required

## Minor in Electrical Engineering

A minor in electrical engineering is open to all students in the University with the prerequisite calculus and physics background. The minor is designed for students who would like a coherent background in the theory and laboratory practice of electrical engineering, particularly for majors in math, science, computer
engineering, or other engineering departments. The completion of a minor in electrical engineering will be recognized by a notation on the student's transcript.

## Minor in Electrical Engineering

Students must file a petition with the coordinator of undergraduate services in 404 Dana to declare the minor prior to taking any course work. A minimum of 20 semester hours of EECE courses is required with a minimum GPA of 2.000 .

## CORE COURSE

Complete one of the following courses with corresponding lab:
EECE $2210 \quad$ Electrical Engineering 4 SH
with EECE 2211 Lab for EECE 22101 SH
EECE 2410 Circuits 4 SH
with EECE 2411 Introduction to Electrical and 1 SH
Computer Engineering Laboratory

## ELECTIVE CORE COURSES

Complete two of the following courses with corresponding labs:
EECE 2322 Digital Logic Design 4 SH
with EECE 2323 Lab for EECE 23221 SH
EECE 2412 Electronics 14 SH
with EECE 2413 Lab for EECE 24121 SH
EECE 3440 Electromagnetic Fields and Waves 4 SH
with EECE 3441 Lab for EECE $3440 \quad 1$ SH

## ELECTRICAL ENGINEERING TECHNICAL ELECTIVES

Complete 5 semester hours of electrical engineering technical electives from the following list:
EECE $3392 \quad$ Electronic Materials 4 SH
EECE 3410 Electronics 24 SH
EECE 3440 Electromagnetic Fields and Waves 4 SH
with EECE 3441 Lab for EECE 34401 SH
EECE 3464 Linear Systems
EECE 3468 Noise and Stochastic Processes
EECE 4524 VLSI Design
with EECE 4525 Lab for EECE 4524
EECE 4572 Communications Systems
EECE 4574 Wireless Communication Circuits
EECE 4576 Wireless Personal Communications

EECE 4600
Electronic Design
4 SH
1 SH
4 SH
4 SH
4 SH
4 SH
4 SH
4 SH
1 SH
4 SH
4 SH
4 SH
1 SH

| EECE 5680 | Electric Drives | 4 SH |
| :--- | :--- | :--- |
| EECE 5682 | Power Systems Analysis 1 | 4 SH |
| with EECE 5683 | Power Systems Lab | 1 SH |
| EECE 5686 | Electrical Machines | 4 SH |
| ENGR 4608 | Nanotechnology in Engineering | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Computer Engineering

The use of computer technology is exploding, driven by applications in wireless communications, multimedia, portable devices, and Internet computing. At the core of these technological advances are computer engineers who research, design, and develop hardware and software. With a degree in computer engineering you might develop a full-featured multimedia phone, design the next-generation microprocessor, program computerguided cameras to inspect nanomanufacturing facilities, or start your own software company.

The computer engineering major acquires a strong foundation in engineering principles and the physical sciences in addition to a powerful mix of theory and practice in hardware and software design. The core of the computer engineering curriculum comprises courses in computer organization and architecture, computer networks, computer-aided design, programming languages, optimization theory, and software design.

As specified below, the BSCompE degree requires a sequence of core courses, technical electives, general electives, and electives in the arts and humanities and social sciences.

## BSCompE-Bachelor of Science in Computer Engineering

## ENGINEERING CATEGORICAL REQUIREMENT

Students must complete a minimum of semester hours in the categories of math/science and engineering topics. Completing all courses in the prescribed curriculum satisfies these requirements without any additional consideration. However, any student with transfer credit or course substitutions must meet with an academic advisor to plan appropriate course work to assure that these requirements are fully satisfied.

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 37 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:
CHEM $1151 \quad$ General Chemistry for Engineers 4 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH Engineering
MATH $1342 \quad$ Calculus 2 for Science and 4 SH

MATH $2310 \quad$ Discrete Mathematics 4 SH


## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

## MAJOR GPA REQUIREMENT <br> 2.000 minimum GPA required in EECE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

138 total semester hours required
Minimum 2.000 GPA required

## Minor in Computer Engineering

The minor in computer engineering is open to all students in the University. The minor is designed for students who would like a coherent background in the theory and laboratory practice of computer engineering. The completion of a minor in computer engineering will be recognized by a notation on the student's transcript.

## Minor in Computer Engineering

Students must file a petition with the coordinator of undergraduate services in 404 Dana to declare the minor prior to taking any course work. A minimum of 18 semester hours is required with a minimum GPA of 2.000 .

## CORE COURSE

Complete the following course with corresponding lab:

| CS 1500 | Algorithms and Data Structures for <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| with CS 1501 | Lab for CS 1500 | 1 SH |

Computer science majors may substitute the following course with corresponding lab:
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 4 \mathrm{SH}$
with CS 2501 Lab for CS 25001 SH

## MAJOR CORE COURSES

Complete the following two courses with corresponding lab, as indicated:
EECE 2322 Digital Logic Design 4 SH
with EECE 2323 Lab for EECE 23221 SH
EECE $3324 \quad$ Computer Architecture and 4 SH Organization
Computer science majors may substitute the following two courses for EECE 3324:
CS 2600 Computer Organization 4 SH
EECE $3230 \quad$ Computer Architecture for 4 SH

| Complete 4 semester hours from the following list (computer science majors should complete 8 semester hours): |  |  |
| :---: | :---: | :---: |
| EECE 3326 | Optimization Methods | 4 SH |
| EECE 4520 | Software Engineering 1 | 4 SH |
| EECE 4522 | Software Engineering 2 | 4 SH |
| EECE 4524 | VLSI Design | 4 SH |
| with EECE 4525 | Lab for EECE 4524 | 1 SH |
| EECE 4526 | High-Speed Digital Design | 4 SH |
| EECE 4528 | CAD for Design and Test | 4 SH |
| EECE 4530 | Hardware Description Languages and Synthesis | 4 SH |
| EECE 4534 | Microprocessor-Based Design | 4 SH |
| with EECE 4535 | Lab for EECE 4534 | 1 SH |
| EECE 4622 | Parallel and Distributed Processing | 4 SH |
| EECE 4626 | Image Processing and Pattern Recognition | 4 SH |
| EECE 4628 | Computer and Telecommunication Networks | 4 SH |
| with EECE 4629 | Internetworking Design Lab | 1 SH |
| EECE 4630 | Robotics | 4 SH |
| EECE 4694 | Numerical Methods and Computer Applications | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Biomedical Engineering

Medical imaging and biomedical electronics are important areas of biomedical engineering that are within the province of electrical engineering. The minor in biomedical engineering is open to all students in the University with the prerequisite calculus and physics background. The minor is particularly designed for majors in electrical or computer engineering, biology, health science fields, or other engineering departments who would like a background in relevant aspects of biology and electrical engineering, with the opportunity to complete an interdisciplinary biomedical engineering (capstone) design project. Course work in anatomy and physiology and other health science topics is combined with technical engineering courses related to biomedical imaging and instrumentation. Specific curriculum information about the biomedical engineering minor may be obtained from the Department of Electrical and Computer Engineering office, 411 Dana Research Center, from the department Web site, or by calling 617.373.2165.

## Minor in Biomedical Engineering

Students must file a petition with the coordinator of undergraduate services in 404 Dana to declare the minor prior to taking any course work. A minimum of 26 semester hours is required with a minimum GPA of 2.000 .

## REQUIRED CORE COURSES

Complete the following three courses with corresponding lab, as indicated:

| BIOL 1117 | Integrated Anatomy and Physiology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1118 | Lab for BIOL 1117 | 1 SH |
| EECE 2411 | Introduction to Electrical and | 1 SH |
|  | $\quad$ Computer Engineering Laboratory |  |
| EECE 4512 | Biomedical Electronics <br> or EECE 4664 | Biomedical Signal Processing and <br> $\quad$Medical Imaging |
|  | 4 SH |  |
|  |  |  |

REQUIRED CAPSTONE-DESIGN COURSES
$\begin{array}{lcc}\text { Complete two courses on a biologically oriented project: } & \\ \text { EECE 4790 } & \begin{array}{c}\text { Electrical and Computer Engineering }\end{array} & 4 \mathrm{SH} \\ \text { EECE 4792 } & \begin{array}{c}\text { Clectrical and Computer Engineering }\end{array} & 4 \mathrm{SH} \\ & \text { Capstone } 2\end{array}$

## ELECTIVE COURSES

Complete eight semester hours with courses from the following list:

## Electrical Engineering

EECE 2210 Electrical Engineering
4 SH

## Biology

BIOL 1119 Integrated Anatomy and Physiology 24 SH
with BIOL 1120 Lab for BIOL 11191 SH
BIOL $2319 \quad$ Regulatory Cell Biology 4 SH
with BIOL 2320 Lab for BIOL 23191 SH
BIOL 2321 Microbiology 4 SH
with BIOL 2322 Lab for BIOL 23211 SH
BIOL 3405 Neurobiology 4 SH
BIOL $5551 \quad$ Principles of Animal Physiology 4 SH
with BIOL 5552 Lab for BIOL $5551 \quad 1$ SH
BIOL $5573 \quad$ Medical Microbiology 4 SH
with BIOL 5574 Lab for BIOL 55731 SH
BIOL 5587 Comparative Neurobiology 4 SH
Physics
PHYS $4621 \quad$ Biological Physics $1 \quad 4 \mathrm{SH}$
PHYS 4623 Medical Physics 4 SH
PHYS 4651 Medical Physics Seminar $1 \quad 4$ SH

| Psychology |  |  |
| :--- | :--- | :--- |
| PSYC 3452 | Sensation and Perception | 4 SH |

PSYC $3458 \quad$ Psychobiology 4 SH

| Cardiopulmonary |  | and Exercise Sciences |
| :--- | :--- | :--- |
| EXSC 4500 | Exercise Physiology 1 | 4 SH |
| with EXSC 4501 | Lab for EXSC 4500 | 1 SH |
| EXSC 4504 | Clinical Kinesiology | 4 SH |
| with EXSC 4505 | Lab for EXSC 4504 | 1 SH |
| Physical Therapy |  |  |
| PT 5138 | Neuroscience | 4 SH |
| with PT 5139 | Lab for PT 5138 | 1 SH |
| PT 5170 | Motor Control | 3 SH |


\section*{Speech-Language Pathology and Audiology <br> | SLPA 1103 | Anatomy and Physiology of the Vocal <br> Mechanism | 4 SH |
| :--- | :--- | :--- |
| SLPA 1202 | Neurological Bases of Communication | 4 SH |
| SLPA 1203 | Introduction to Audiology | 4 SH |
| SLPA 1205 | Speech and Hearing Science | 4 SH | <br> GPA REQUIREMENT <br> 2.000 GPA required in the minor <br> Integrated Dual Major in Electrical and Computer Engineering}

Students may choose to major in both electrical and computer engineering by following the integrated dual-major program leading to a Bachelor of Science in Electrical Engineering or Bachelor of Science in Computer Engineering. Students take the required courses for both majors along with technical electives distributed among the areas of computer engineering; fields, waves, and optics; signals and systems; power engineering; and electronic circuits and devices. A general elective and electives in the arts and humanities and social sciences are also required.

## BSEE or BSCompE—Bachelor of Science in Electrical/Computer Engineering

## ENGINEERING CATEGORICAL REQUIREMENT

Students must complete a minimum of semester hours in the categories of math/science and engineering topics. Completing all courses in the prescribed curriculum satisfies these requirements without any additional consideration. However, any student with transfer credit or course substitutions must meet with an academic advisor to plan appropriate course work to assure that these requirements are fully satisfied.

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:

| CHEM 1151 | General Chemistry for Engineers <br> Calculus 1 for Science and <br> MATH 1341 | 4 SH |
| :--- | :--- | :--- |
| MATH 1342 |  |  |
|  | Ealculus 2 for Science and <br> Engineering |  |
| MATH 2310 | Discrete Mathematics <br> MATH 2321 <br>  <br>  <br> Calculus 3 for Science and <br> Engineering | 4 SH |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 SH |
| PHYS 1151 | Physics for Engineering 1 |  |
| with PHYS 1152 <br> PHYS 1155 | Lab for PHYS 1151 <br> Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |


| urther Credit |  |  |
| :---: | :---: | :---: |
| 2 semester hours from the following course count toward the mathematics/science requirement: |  |  |
| EECE 3468 | Noise and Stochastic Processes | 4 SH |
| 2 semester hours from the following lecture/lab combination count toward the mathematics/science requirement: |  |  |
| CS 1500 | Algorithms and Data Structures for Engineering | 4 SH |
| with CS 1501 | Lab for CS 1500 | 1 SH |

1 semester hour from the following course counts toward the mathematics/science requirement:

## GE 1111 Engineering Problem Solving and Computation

## ENGINEERING REQUIREMENT

Complete 76 semester hours in engineering as indicated below:

| EECE 2322 | Digital Logic Design | 4 SH |
| :---: | :---: | :---: |
| with EECE 2323 | Lab for EECE 2322 | 1 SH |
| EECE 2410 | Circuits | 4 SH |
| with EECE 2411 | Introduction to Electrical and Computer Engineering Laboratory | 1 SH |
| EECE 2412 | Electronics 1 | 4 SH |
| with EECE 2413 | Lab for EECE 2412 | 1 SH |
| EECE 3324 | Computer Architecture and Organization | 4 SH |
| EECE 3326 | Optimization Methods | 4 SH |
| EECE 3410 | Electronics 2 | 4 SH |
| EECE 3440 | Electromagnetic Fields and Waves | 4 SH |
| with EECE 3441 | Lab for EECE 3440 | 1 SH |
| EECE 3464 | Linear Systems | 4 SH |
| EECE 4572 | Communications Systems | 4 SH |
| EECE 4628 | Computer and Telecommunication Networks | 4 SH |
| with EECE 4629 | Internetworking Design Lab | 1 SH |
| EECE 4790 | Electrical and Computer Engineering Capstone 1 | 4 SH |
| EECE 4792 | Electrical and Computer Engineering Capstone 2 | 4 SH |

## Electrical and Computer Engineering Technical Electives

Complete 16 semester hours from the following list:
EECE 3392 Electronic Materials
4 SH
EECE 4512 to EECE 4535
EECE 4574 to EECE 4626
EECE 4630 to EECE 4698
EECE 5150 to EECE 5686

| CS 3200 | Database Design |
| :--- | :--- |
| CS 3500 | Object-Oriented Design |
| CS 3600 | Systems and Networks |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4300 | Computer Graphics |
| CS 4400 | Programming Languages |
| CS 4410 | Compilers |


| CS 4550 | Web Development | 4 SH |
| :--- | :--- | :--- |
| CS 4600 | Topics in Operating Systems | 4 SH |
| CS 4740 | Network Security | 4 SH |

## Further Credit

3 semester hours from the following course count toward the engineering requirement:
GE $1110 \quad$ Engineering Design 4 SH
2 semester hours from each of the following courses count toward the engineering requirement:

| EECE 3468 | Noise and Stochastic Processes | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  | Computation |  |

## PROFESSIONAL DEVELOPMENT REQUIREMENT

Complete 8 semester hours in professional development as indicated below.

## Professional Development

Complete the following three courses:

| GE 1000 | Introduction to the Study of | 1 SH |
| :--- | :--- | :---: |
| EECE 2000 | Engineering <br> Introduction to Engineering Co-op <br> Education | 1 SH |
| EECE 3000 | Professional Issues in Engineering | 1 SH |

## Further Credit

3 semester hours from the following lecture/lab combination count toward the professional development requirement:
CS $1500 \quad$ Algorithms and Data Structures for 4 SH Engineering
with CS 1501 Lab for CS 1500
1 SH
1 semester hour from each of the following courses counts toward the professional development requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  | Computation |  |

## ADDITIONAL NU CORE COURSES

Complete 16 semester hours in NU Core course work as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:
ENGL 11114 SH
ENGL 3302 Advanced Writing in the Technical 4 SH

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

## Social Science Level 1

Complete 4 semester hours from the NU Core social science
level 1 domain, as described on page 26.

## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

## MAJOR GPA REQUIREMENT <br> 2.000 minimum GPA required in EECE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

## UNIVERSITY-WIDE REQUIREMENTS

139 total semester hours required
Minimum 2.000 GPA required

## Integrated Dual Major in Electrical Engineering and Physics

This intercollege dual major serves students who would like to explore their interest in physics while earning the benefit of an accredited Bachelor of Science degree in engineering. The dual major combines a major in physics from the Department of Physics in the College of Arts and Sciences with the Bachelor of Science in Electrical Engineering degree from the Department of Electrical and Computer Engineering.

Because of the large body of shared knowledge between electrical engineering and physics, an integrated dual major between these two disciplines is a logical course of study and can be accomplished within a student's usual five-year program (including three co-op placements) without requiring course overloading in any semester. A student graduating from this program will have studied both the physical fundamentals and the applications of electronic devices and systems. The program is a particularly appropriate course of study for students who wish to pursue a career in solid-state devices, microelectromechanical systems, or nanotechnology.

Students interested in this program should contact the electrical and computer engineering department or the physics department as early as possible, preferably prior to registering for freshman courses.

## BSEE in Electrical Engineering and Physics

## ENGINEERING CATEGORICAL REQUIREMENT

Students must complete a minimum of semester hours in the categories of math/science and engineering topics. Completing all courses in the prescribed curriculum satisfies these requirements without any additional consideration. However, any student with transfer credit or course substitutions must meet with an academic advisor to plan appropriate course work to assure that these requirements are fully satisfied.

## ELECTRICAL ENGINEERING AND PHYSICS GENERAL EDUCATION

Mathematics and Science
CALCULUS 1 AND 2 FOR SCIENCE/ENGINEERING Complete the following two courses:

| MATH 1341 | Calculus 1 for Science and <br> Engineering <br> Calculus 2 for Science and <br> Engineering | 4 SH |
| :--- | :--- | :--- |
| MATH 1342 | 4 SH |  |

## PHYSICS 1 AND 2

Complete the following two courses with corresponding labs:

| PHYS 1161 | Physics 1 | 4 SH |
| :--- | :--- | :--- |
| with PHYS 1162 | Lab for PHYS 1161 | 1 SH |
| or PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYS1165 | Physics 2 |  |
| with PHYS 1166 | Lab for PHYS 1165 | 1 SH |
| or PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## CHEMISTRY

Complete the following course:
CHEM $1151 \quad$ General Chemistry for Engineers 4 SH
DIFFERENTIAL EQUATIONS/LINEAR ALGEBRA
Complete the following course:
MATH $2341 \quad$ Differential Equations and Linear 4 SH
Algebra for Engineering
or complete the following set of courses:
MATH $2351 \quad$ Ordinary Differential Equations 4 SH
and MATH 2331 Linear Algebra 4 SH
CALCULUS 3 FOR SCIENCE/ENGINEERING
Complete the following course:
MATH $2321 \quad$ Calculus 3 for Science and 4 SH
Engineering
ALGORITHMS AND DATA STRUCTURES
Complete the following course with corresponding lab:
CS 1500 Algorithms and Data Structures for Engineering
with CS 1501 Lab for CS 1500

## Arts/Humanities Level 1

Complete one course in the NU Core arts/humanities level 1 domain, as described on page 26 .

## Social Science Level 1

Complete one course in the NU Core social science level 1 domain, as described on page 26.

GENERAL ELECTIVE
Complete one 4-SH-equivalent academic, nonremedial, nonrepetitive course.

## ELECTRICAL ENGINEERING MAJOR REQUIREMENTS

First-Year Engineering
Complete the following two courses:
GE $1110 \quad$ Engineering Design SH
GE $1111 \begin{gathered}\text { Engineering Problem Solving and } \\ \text { Computation }\end{gathered}$

## General Engineering

Complete the following three courses:

| GE 1000 | Introduction to the Study of |
| :--- | :--- |
| Engineering |  |
| EECE 2000 | Introduction to Engineering Co-op |
|  | Education |
| EECE 3000 | Professional Issues in Engineering |

## Electrical Engineering Lab

Complete the following course:
EECE 2401 Introduction to Electrical and
Computer Engineering Lab

## Linear Circuits

Complete the following course:
EECE 2400 Linear Circuits 4 SH

## Electronics

Complete the following course with corresponding lab:
EECE 2402 Electronics
with EECE 2403 Lab for EECE 2402

## Digital Logic Design

Complete the following course with corresponding lab:
EECE $2322 \quad$ Digital Logic Design 4 SH
with EECE 2323 Lab for EECE 2322

## Linear Systems

Complete the following course:
EECE 3464 Linear Systems

## Electromagnetic Fields and Waves

Complete the following course with corresponding lab:
EECE $3440 \quad$ Electromagnetic Fields and Waves
with EECE 3441 Lab for EECE 3440
Noise and Stochastic Processes
Complete the following course:
EECE $3468 \quad$ Noise and Stochastic Processes

## Communications Systems

Complete the following course:
EECE 4572 Communications Systems

## Electrical Engineering Technical Electives

Complete two 4-SH-equivalent courses in the following range:
EECE 2001 to EECE 5999

## Capstone Design

Complete the following two courses:
EECE $4790 \quad$ Electrical and Computer Engineering
Capstone 1
EECE $4792 \quad$ Electrical and Computer Engineering
4 SH

4 SH

## PHYSICS MAJOR REQUIREMENTS

## Required Physics

Complete the following five courses:
PHYS 2303 Modern Physics
4 SH
PHYS 2305 Thermodynamics and Statistical 4 SH
Mechanics
PHYS $3600 \quad$ Advanced Physics Laboratory 14 SH
PHYS $3602 \quad$ Electricity and Magnetism 4 SH
PHYS 5115 Quantum Mechanics 4 SH
Advanced Physics Elective
Complete one PHYS course in the following range:
PHYS 3600 to PHYS 4999
MAJOR GPA REQUIREMENT
2.000 minimum GPA required in EECE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
138 total semester hours required
Minimum 2.000 GPA required

## BSIMS in Applied Physics and Engineering

See page 184.

## MECHANICAL AND INDUSTRIAL ENGINEERING

www.mie.neu.edu

## Hameed Metghalchi, ScD

Professor and Chair
Emanuel S. Melachrinoudis, PhD
Associate Professor, Associate Chair, and Director of Industrial Engineering

Office: 334 Snell Engineering Center
Phone: 617.373.2740
Fax: 617.373.2921

Thhe Department of Mechanical and Industrial Engineering offers two accredited programs leading to a Bachelor of Science in industrial engineering or a Bachelor of Science in mechanical engineering. Five-year Bachelor of Science/Master of Science joint-degree programs in the above two disciplines are also available. In addition, the department offers the following minors: (a) minor in industrial engineering, (b) minor in mechanical engineering, and (c) minor in biomechanical engineering.

Our mission is to educate persons for professional and technical excellence; to perform research to advance the science and practice of engineering; to engage in service activities that advance the department, the University, and the profession; and to instill in ourselves and our students habits and attitudes that promote ethical behavior, professional responsibility, and careers that advance the well-being of society.

The goal is for graduates from our undergraduate programs to demonstrate technical excellence in their chosen fields, anticipate and respond to societal changes, and develop careers with depth and flexibility, while retaining a professional and intellectual thrust throughout.

Specifically, we have established the following educational objectives for our undergraduate programs:

1a. Mechanical engineers will show proficiency in the analysis, modeling, and design of thermal and mechanical systems.
1b. Industrial engineers will show proficiency in the design, analysis, optimization, and improvement of integrated systems that include people, materials, information, equipment, and energy.
2. Graduates will successfully integrate their academic preparation with engineering practice.
3. Graduates will effectively utilize management skills to design projects and/or programs, to lead their implementation, and to present technical information, as appropriate to their field.
4. Graduates will engage in continuing education for professional development and career planning, including success in graduate education and research for those who choose to do so.

## Industrial Engineering

Industrial engineering involves the design and analysis of systems that include people, equipment, and materials and their interactions and performance in the workplace. The industrial engineer collects this information and evaluates alternatives to make decisions that best advance the goals of the enterprise.

The program in industrial engineering offers students a base of traditional engineering courses, such as work design, humanmachine systems, probability, statistics, and engineering economy, while emphasizing such contemporary areas as digital simulation, computer information and database systems, quality assurance, logistics and supply chain management, operations research, and facilities planning. Students integrate the knowledge acquired in these courses in a two-semester capstone design project.

Industrial engineers work in manufacturing firms, hospitals, banks, public utilities, transportation, government agencies, insurance companies, and construction firms. Among the projects they undertake are design and implementation of a computerintegrated manufacturing system, facilities planning for a variety of industries, design of a robotics system in a manufacturing
environment, long-range corporate planning, development and implementation of a quality-control system, simulation analyses to improve processes and make operational decisions, design of workstations to enhance worker safety and productivity, and development of computer systems for information control.

More than 90 percent of department undergraduate students take advantage of the cooperative education program. Cooperative education assignments generally increase in level of responsibility as students gain theoretical and technical knowledge through their academic work. A sophomore might begin as a computer analyst evaluating the performance of a manufacturing system and progress to designing manufacturing engineering workstations by the senior year.

## BSIE—Bachelor of Science in Industrial Engineering

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:
CHEM $1151 \quad$ General Chemistry for Engineers 4 SH
or CHEM 1211 General Chemistry 14 SH
or CHEM 1214 General Chemistry 24 SH
MATH $1341 \quad$ Calculus 1 for Science and 4 SH

MATH $1342 \quad$ Calculus 2 for Science and 4 SH
Engineering
MATH $2321 \quad$ Calculus 3 for Science and 4 SH

MATH 2341 Differential Equations and Linear 4 SH
Algebra for Engineering
PHYS $1151 \quad$ Physics for Engineering 1 SH
with PHYS 1152 Lab for PHYS 11511 SH
PHYS $1155 \quad$ Physics for Engineering 2 SH
with PHYS 1156 Lab for PHYS 11551 SH

## Further Credit

3 semester hours from the following course count toward the mathematics/science requirement:
IE $3412 \quad$ Engineering Probability and Statistics 4 SH
2 semester hours from each of the following courses count toward the mathematics/science requirement:

| IE 4515 | Operations Research | 4 SH |
| :--- | :--- | :--- |
| IE 4520 | Stochastic Modeling | 4 SH |

1 semester hour from each of the following courses counts toward the mathematics/science requirement:
GE $1111 \quad$ Engineering Problem Solving and 4 SH Computation
IE $4512 \quad$ Engineering Economy

## ENGINEERING REQUIREMENT

Complete 61 semester hours in engineering as indicated below.

## Required Engineering

Complete each of the following courses with corresponding labs, as indicated:
IE $2310 \quad$ Introduction to Industrial Engineering 4 SH
IE $3420 \quad$ Computers and Information Systems 4 SH
IE 3425 Engineering Database Systems 4 SH
IE $4510 \quad$ Digital Simulation Techniques 4 SH
IE $4516 \quad$ Quality Assurance 4 SH
IE $4522 \quad 4$ SH
with IE $4523 \quad$ Lab for IE 45221 SH
IE 4525 Logistics and Supply Chain 4 SH

IE $4530 \quad$ Manufacturing Systems and 4 SH
Techniques
with IE 4531
MEIE 4701
Lab for IE 4530
1 SH

MEIE 4702 Capstone Design 2

## Engineering Electives

Complete 8 semester hours of engineering electives in the
following subjects: CHME, CIVE, EECE, IE, ME, and MEIE.

## Further Credit

3 semester hours from each of the following courses count toward the engineering requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| IE 4512 | Engineering Economy | 4 SH |

2 semester hours from each of the following courses count toward the engineering requirement:

| GE 1111 | Engineering Problem Solving and <br> Computation | 4 SH |
| :--- | :--- | :--- |
| IE 4515 | Operations Research | 4 SH |
| IE 4520 | Stochastic Modeling | 4 SH |

1 semester hour from the following course counts toward the engineering requirement:
IE $3412 \quad$ Engineering Probability and Statistics 4 SH

## PROFESSIONAL DEVELOPMENT REQUIREMENT

Complete 5 semester hours in professional development as indicated below.

## Professional development

Complete the following three courses:
$\begin{array}{llc}\text { GE 1000 } & \begin{array}{l}\text { Introduction to the Study of } \\ \text { Engineering }\end{array} & 1 \mathrm{SH} \\ \text { MEIE 2000 } & \begin{array}{l}\text { Introduction to Engineering Co-op } \\ \text { Education }\end{array} & 1 \mathrm{SH} \\ \text { MEIE 3000 } & \begin{array}{l}\text { Professional Issues in Engineering }\end{array} & 1 \mathrm{SH}\end{array}$

## Further Credit

1 semester hour from each of the following courses counts toward the professional development requirement:
GE $1110 \quad$ Engineering Design 4 SH
GE 1111 Engineering Problem Solving and 4 SH

## ADDITIONAL NU CORE COURSES

Complete 16 semester hours in NU Core course work as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:
ENGL $1111 \quad 4 \mathrm{SH}$
ENGL 3302 Advanced Writing in the Technical 4 SH
Professions

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

Social Science Level 1
Complete 4 semester hours from the NU Core social science level 1 domain, as described on page 26.

GENERAL ELECTIVES
Complete four 4-SH-equivalent academic, nonremedial, nonrepetitive courses.

## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

## MAJOR GPA REQUIREMENT

2.000 minimum GPA required in IE, ME, and MEIE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
137 total semester hours required
Minimum 2.000 GPA required

## Minor in Industrial Engineering

## REQUIRED COURSES

Complete the following three courses:

| IE 2310 | Introduction to Industrial Engineering | 4 SH |
| :--- | :--- | :--- |
| IE 3412 | Engineering Probability and Statistics | 4 SH |
| or equivalent   <br> IE 4515  4 SH |  |  |

## TECHNICAL ELECTIVE

Complete one course from the following list (see mechanical and industrial engineering academic advisor for additional electives):

| IE 3420 | Computers and Information Systems | 4 SH |
| :--- | :--- | :--- |
| IE 3425 | Engineering Database Systems | 4 SH |
| IE 4510 | Digital Simulation Techniques | 4 SH |
| IE 4512 | Engineering Economy | 4 SH |
| IE 4516 | Quality Assurance | 4 SH |
| IE 4520 | Stochastic Modeling | 4 SH |


| IE 4522 | Human Machine Systems <br> IE 4525 | Logistics and Supply Chain <br> Management |
| :--- | :--- | :--- |
| IE 4530 | Manufacturing Systems and <br> Techniques | 4 SH |
|  | TeH |  |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Mechanical Engineering

Mechanical engineering involves the design, development, and manufacture of machinery and devices to transmit power or to convert energy from thermal to mechanical form in order to power the modern world and its machines. Its current practice has been heavily influenced by recent advances in computer hardware and software.

Mechanical engineers use computers to formulate preliminary and final designs of systems or devices, to perform calculations that predict the behavior of the design, and to collect and analyze performance data from system testing or operation.

Traditionally, mechanical engineers have designed and tested devices, such as heating and air-conditioning systems, machine tools, internal-combustion engines, and steam power plants. Today they also play primary roles in the development of new technologies in a variety of fields-energy conversion, solar energy utilization, environmental control, prosthetics, transportation, manufacturing, and new-materials development.

The curriculum in mechanical engineering focuses on three areas: applied mechanics, thermofluids engineering, and materials science. Applied mechanics is the study of the motion and deformation of structural elements acted on by forces in devices that range from rotating industrial dynamos to dentists' drills. Thermofluids engineering deals with the motion of fluids and the transfer of energy, as in the cooling of electronic components or the design of gas turbine engines. Materials science is concerned with the relationship between the structure and properties of materials and with the control of structure, through processing, to achieve the desired properties. Practical applications are in the development of composite materials and in metallurgical process industries.

Courses in each area form the foundation for advanced analytical and creative design courses that culminate in a twosemester capstone design project. Faculty encourages students throughout the curriculum to use computer-aided design tools and high-performance computer workstations.

More than 90 percent of department undergraduate students take advantage of the cooperative education program. Cooperative education assignments increase in responsibility and technical challenge as students progress through the program. Initial positions may involve computer-intensive CAD/CAM assignments or programming tasks, while more advanced jobs will place students in charge of quality-control systems and performance testing of equipment.

## BSME—Bachelor of Science in Mechanical Engineering

## MATHEMATICS/SCIENCE REQUIREMENT

Complete 36 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete each of the following courses with corresponding labs, as indicated:

| BIOL 1111 | General Biology 1 | 4 SH |
| :---: | :---: | :---: |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| CHEM 1151 | General Chemistry for Engineers | 4 SH |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 SH |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 SH |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 SH |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 SH |
| PHYS 1151 | Physics for Engineering 1 | 4 SH |
| with PHYS 1152 | Lab for PHYS 1151 | 1 SH |
| PHYS 1155 | Physics for Engineering 2 | 4 SH |
| with PHYS 1156 | Lab for PHYS 1155 | 1 SH |

## Further Credit

1 semester hour from the following course counts toward the mathematics/science requirement:

GE $1111 \quad$| Engineering Problem Solving and |
| :---: |
| Computation |

## ENGINEERING REQUIREMENT

Complete 68 semester hours in engineering as indicated below.

## Required Engineering

Complete each of the following courses with corresponding labs, as indicated:
EECE $2210 \quad$ Electrical Engineering 4 SH
with EECE 2211 Lab for EECE 22101 SH
ME 2340 Introduction to Material Science 4 SH
with ME 2341 Lab for ME $2340 \quad 1$ SH
ME 2350 Engineering Mechanics and Design 4 SH
ME 2355 Mechanics of Materials 4 SH
with ME 2356 Lab for ME 23551 SH
ME 2380 Thermodynamics 4 SH
ME 3455 Dynamics and Vibrations 4 SH
with ME 3456 Lab for ME 34551 SH
ME 3475 Fluid Mechanics 4 SH
or ME 3480 International Applications of Fluid 4 SH Mechanics
ME 4505 Measurement and Analysis with 4 SH
with ME $4506 \quad$ Lab for ME $4505 \quad 1$ SH
ME $4508 \quad$ Mechanical Engineering Computation 4 SH and Design
ME $4550 \quad$ Mechanical Engineering Design 4 SH

| ME 4555 | System Analysis and Control | 4 SH |
| :--- | :--- | :--- |
| ME 4570 | Thermal Systems Analysis and Design | 4 SH |
| MEIE 4701 | Capstone Design 1 | 1 SH |
| MEIE 4702 | Capstone Design 2 | 5 SH |

Mechanical and Industrial Engineering Technical Elective
Complete one technical elective in one of the following subjects:
IE, ME, or MEIE.

## Further Credit

3 semester hours from the following course count toward the engineering requirement:

## GE $1110 \quad$ Engineering Design

4 SH
2 semester hours from the following course count toward the engineering requirement:

GE $1111 \quad$| Engineering Problem Solving and |
| :--- |
| Computation |

## PROFESSIONAL DEVELOPMENT REQUIREMENT

Complete 5 semester hours in professional development as indicated below.

## Professional Development

Complete the following three courses:
GE $1000 \quad$ Introduction to the Study of 1 SH
MEIE $2000 \quad$ Introduction to Engineering Co-op 1 SH Education
MEIE $3000 \quad$ Professional Issues in Engineering
1 SH

## Further Credit

1 semester hour from each of the following courses counts toward the professional development requirement:

| GE 1110 | Engineering Design | 4 SH |
| :--- | :--- | :--- |
| GE 1111 | Engineering Problem Solving and | 4 SH |
|  |  |  |
|  | Computation |  |

## ADDITIONAL NU CORE COURSES

Complete 16 semester hours in NU Core course work as indicated below.

## Writing

Complete the following two courses with a grade of C or higher in each course:
ENGL 1111
ENGL 3302 Advanced Writing in the Technical 4 SH Professions

## Arts/Humanities Level 1

Complete 4 semester hours from the NU Core arts/humanities level 1 domain, as described on page 26.

## Social Science Level 1

Complete 4 semester hours from the NU Core social science level 1 domain, as described on page 26 .

## GENERAL ELECTIVES

Complete four 4-SH-equivalent academic, nonremedial, nonrepetitive courses.

## RESIDENCY REQUIREMENT

32 of the final 40 semester hours must be taken at Northeastern University.

MAJOR GPA REQUIREMENT
2.000 minimum GPA required in IE, ME, and MEIE courses

## NU CORE REQUIREMENTS

See page 26 for requirement list.

## GENERAL ELECTIVES

Additional courses taken beyond college and major course requirements to satisfy graduation credit requirements.

## COOPERATIVE EDUCATION

UNIVERSITY-WIDE REQUIREMENTS
141 total semester hours required
Minimum 2.000 GPA required

## Minor in Mechanical Engineering

## REQUIRED COURSES

Complete the following two courses:

| ME 2350 | Engineering Mechanics and Design | 4 SH |
| :--- | :--- | :--- |
| ME 2380 | Thermodynamics | 4 SH |

MECHANICAL ENGINEERING TECHNICAL ELECTIVES
Complete two courses from the following list:

| ME 2340 | Introduction to Material Science | 4 SH |
| :--- | :--- | :--- |
| ME 2355 | Mechanics of Materials | 4 SH |
| ME 3455 | Dynamics and Vibrations | 4 SH |
| ME 3475 | Fluid Mechanics | 4 SH |
| or ME 3480 | International Applications of Fluid <br>  <br> Mechanics | 4 SH |
| ME 4508 | Mechanical Engineering Computation <br>  <br>  <br> and Design | 4 SH |
| ME 4550 4555 | Mechanical Engineering Design | 4 SH |
| ME 4570 | System Analysis and Control <br> Thermal Systems Analysis and Design | 4 SH |

## GPA REQUIREMENT

2.000 GPA required in the minor

## Minor in Biomechanical Engineering

REQUIRED BIOLOGY
Complete the following two courses with corresponding labs:

| BIOL 1111 | General Biology 1 | 4 SH |
| :--- | :--- | :--- |
| with BIOL 1112 | Lab for BIOL 1111 | 1 SH |
| BIOL 1117 | Integrated Anatomy and Physiology 1 | 4 SH |
| with BIOL 1118 | Lab for BIOL 1117 | 1 SH |

## REQUIRED MECHANICAL ENGINEERING

Complete the following three courses with a biomedical engineering component:

| ME 5665 | Musculoskeletal Biomechanics | 4 SH |
| :--- | :--- | :--- |
| MEIE 4701 | Capstone Design 1 | 1 SH |
| MEIE 4702 | Capstone Design 2 | 5 SH |

TECHNICAL ELECTIVE
Complete one technical elective from the following list (additional electives may be approved by your academic advisor):

| IE 4520 | Stochastic Modeling | 4 SH |
| :--- | :--- | :--- |
| IE 4522 | Human Machine Systems | 4 SH |
| ME 4640 | Mechanical Behavior and Processing <br> of Materials | 4 SH |
| ME 5650 | Advanced Mechanics of Materials | 4 SH |
| ME 5655 | Dynamics and Mechanical Vibration | 4 SH |
| PHYS 4621 | Biological Physics 1 | 4 SH |

GPA REQUIREMENT
2.000 GPA required in the minor

Appendix

# Governing Boards and Officers of Northeastern 

## OFFICERS OF THE CORPORATION <br> AND BOARD OF TRUSTEES 2009-2010

Sy Sternberg, Chairman
George W. Chamillard, Vice Chairman
Katherine S. McHugh, Vice Chair
Henry J. Nasella, Vice Chairman
Neal F. Finnegan, Chairman Emeritus
William F. Allen Jr., Vice Chairman Emeritus
George D. Behrakis, Vice Chairman Emeritus
Richard P. Chapman, Vice Chairman Emeritus
Michael J. Cronin, Vice Chairman Emeritus H. Patricia Hanna, Vice Chair Emerita Ernest Henderson III, Vice Chairman Emeritus Frederic T. Hersey, Vice Chairman Emeritus George S. Kariotis, Vice Chairman Emeritus Donald J. Kramer, Vice Chairman Emeritus John Lowell, Vice Chairman Emeritus Robert C. Marini, Vice Chairman Emeritus Richard C. Ockerbloom, Vice Chairman Emeritus Alan D. Tobin, Vice Chairman Emeritus D. Thomas Trigg, Vice Chairman Emeritus

## MEMBERS OF THE BOARD OF TRUSTEES

Barbara C. Alleyne
Margot Botsford
Frederick Brodsky
Nonnie S. Burnes
Peter B. Cameron
George W. Chamillard
William J. Cotter
Richard A. D'Amore
Edmond J. English
Edward G. Galante
William S. Howard
Anthony R. Manganaro
Ralph C. Martin
Katherine S. McHugh
Henry J. Nasella
Kathryn MacKinnon Nicholson
Dennis J. Picard
Ronald L. Rossetti
Carole J. Shapazian
Robert J. Shillman
Sy Sternberg

Joseph M. Tucci
Michael J. Zamkow
Ellen M. Zane

Joseph Aoun
(ex officio)

## Trustees Emeriti

William F. Allen Jr.
Diana J. Auger
George D. Behrakis
Frederick L. Brown
Louis W. Cabot
Helene R. Cahners-Kaplan
Richard P. Chapman Jr.
Michael J. Cronin
John J. Cullinane
Harry T. Daniels
Richard J. Egan
Ruth S. Felton
James V. Fetchero
Neal F. Finnegan
W. Kevin Fitzgerald
H. Patricia Hanna

Ernest Henderson III
Frederic T. Hersey
Arnold S. Hiatt
Carl R. Hurtig
J. Philip Johnston

George S. Kariotis
Donald J. Kramer
Richard G. Lesser
John Lowell
Diane H. Lupean
Robert C. Marini
Roger M. Marino
Lloyd J. Mullin
Richard C. Ockerbloom
Richard A. Ollen
Arthur A. Pappas
Thomas L. Phillips
Dennis J. Picard
William J. Pruyn
Kenneth G. Ryder
Thomas F. Skelly
Janet M. Smith
Stephen J. Sweeney
W. Nicholas Thorndike

Alan D. Tobin
D. Thomas Trigg

James L. Waters

## Honorary Trustees

Scott M. Black
Edward O. Owens
Lucille R. Zanghi

## OTHER MEMBERS OF THE CORPORATION

Leslie Abi-Karam
Ernie P. Anastos
Tarek As’ad
Robert J. Awkward
William K. Bacic
Vincent F. Barletta
Peter Barrett
Jeffrey S. Bornstein
Richard L. Bready
Richard D. Bruhmuller
John E. Buckley
Wayne A. Budd
John F. Burke
William J. Cadogan
Kim Campbell
Louise Firth Campbell
William P. Casey
Lawrence G. Cetrulo
Arthur L. Cherry
William D. Chin
Robert A. Clayson
Nobuko Saito Cleary
Daniel T. Condon
William J. Conley
Timothy J. Connelly
William M. Cowan
Joseph J. Cronin
Robert L. Culver
Richard J. Daniels
Richard J. DeAgazio
George R. DeVaux
Douglas G. DeVivo
Robert E. DiCenso
Priscilla H. Douglas
Adriane J. Dudley
Gary C. Dunton
Michael J. Egan
Douglas Epstein
Joseph D. Feaster Jr.
Thomas D. Furman
James H. Furneaux

Charles K. Gifford
Gary R. Gregg
Calvin M. Grimes Jr.
Lisa Guscott
Marvin I. Haas
Nancy E. B. Haynes
Charles C. Hewitt III
David L. House
John J. Hurley Jr.
Roderick Ireland
Howard Israel
Deborah C. Jackson
Harry Keegan III
A. Max Kohlenberg

Venetia G. Kontogouris
Myra H. Kraft
Mark A. Krentzman
C. Joseph LaBonte

André A. Laus
Joseph C. Lawler III
Mary Kay Leonard
M. Benjamin Lipman

William Lowell
Jeff B. Lowenfels
George A. MacConnell
Susan B. Major
Paul V. McDonough
Thomas P. McDonough
Alan S. McKim
Angela Menino
Cathy E. Minehan
Lawrence C. Moulter
Francis E. Murphy
Richard I. Neal
Peter J. Ogren
Lawrence A. O’Rourke
Sophia H. Pappas
Carlos F. Pena
Leonard Perham
Valerie W. Perlowitz
John E. Pritchard
Eugene M. Reppucci Jr.
Rhondella Richardson
George P. Sakellaris
Winslow L. Sargeant
Richard Schoenfeld
William J. Shea
Michael J. Sheehan
Robert G. Sheehan
Robert A. Skelly
Peter J. Smail
Daniel L. Smith
Gail Snowden
Robert Somma

Shelley Stewart Jr.
Phyllis S. Swersky
Alexander Thorndike
John F. Toomey
Clayton H. W. Turnbull
James R. Turner
Mark L. Vachon
Lynda Vickers-Smith
Kathleen E. Walsh
James H. Walsh IV
Laurie B. Werner
Catherine A. White
E. Leo Whitworth

Donald K. Williams Jr.
Akira Yamamura

## Administrative Organization

## OFFICERS OF THE UNIVERSITY

Joseph Aoun, BA, MA, PhD, President
Stephen W. Director, BS, MS, PhD, Senior Vice President for Academic Affairs and Provost
Vincent J. Lembo, BA, JD, Vice President and University Counsel
Diane Nishigaya MacGillivray, BA, MA, Senior Vice President for Institutional Advancement
Philomena V. Mantella, BS, MSW, PhD, Senior Vice President for Enrollment Management and Student Affairs
Jack H. McCarthy, BS, MBA, Senior Vice President for Administration and Finance
Mark L. Putnam, BA, MA, EdM, EdD, Senior Vice President for Executive Affairs
Carol Scheman, BA, MSSA, Senior Vice President for External Affairs
Samuel B. Solomon, BS, MBA, CFA, PhD, Treasurer

## ACADEMIC DEANS

Chester Britt, BS, MA, PhD, Interim Dean of the College of Criminal Justice
Larry A. Finkelstein, BS, MA, PhD, Dean of the College of Computer and Information Science
Christopher Hopey, BS, MPA, PhD, Vice President and Dean of the College of Professional Studies
David E. Luzzi, BE, MBA, PhD, Dean of the College of Engineering
Thomas E. Moore, BA, MEd, MBA, PhD, Dean of the College of Business Administration
Bruce Ronkin, BM, MM, DMA, Interim Dean of the College of Arts and Sciences
Emily A. Spieler, AB, JD, Dean of the School of Law
Stephen R. Zoloth, BA, MPH, PhD, Dean of the Bouvé College of Health Sciences

## VICE PROVOSTS

Ken Blank, BA, PhD, Vice Provost for Research
Luis M. Falcón, BA, MSW, PhD, Vice Provost for Graduate
Education
Mary Loeffelholz, PhD, Vice Provost for Academic Affairs
Robert P. Lowndes, BSc, PhD, MBA, Vice Provost for International Affairs
Judith A. Pitney, PhD, Vice Provost for Budget, Planning, and Administration
Susan G. Powers-Lee, BS, PhD, Vice Provost for Undergraduate Education and Cooperative Education

## VICE PRESIDENTS

Michael Armini, BA, MA, Vice President for Marketing and Communications
Jeffrey A. Doggett, BS, MPA, MBA, Vice President for Government Relations and Community Affairs
Robert Gittens, BA, JD, Vice President for Public Affairs Edward Klotzbier, BS, JD, Vice President for Student Affairs Nancy May, AS, BS, Interim Vice President for Facilities Jack Moynihan, BA, MPA, Vice President for Alumni Affairs
Katherine N. Pendergast, BA, MEd, Vice President for Human
Resources Management
Marian Stanley, BA, MA, Vice President for Corporate Relations
Robert P. Weir, BS, Vice President for Information Services

## ADMINISTRATIVE LEADERS

Linda D. Allen, BA, MEd, University Registrar
D. Joseph Griffin, BS, MPA, Director of Public Safety
M. Seamus Harreys, BA, EdM, MBA, Dean of Student Financial Services
Deanna Jantzen, BA, MPA, JD, Director, Board of Trustees Office, and Assistant University Counsel
Donnie J. Perkins, BS, MS, Dean and Director of Institutional Diversity and Equity
Peter P. Roby, BA, MS, Director of Athletics
Ronné A. Turner, BA, MA, Dean of Admissions and New Student and Family Services
William Wakeling, BA, MA, MA, Dean and Director, University Libraries

Ali Abur
Professor, Electrical and
Computer Engineering; Ohio
State University, PhD, 1985
Dolores Acevedo-Garcia
Associate Professor, Health
Sciences; Princeton University, PhD, 1996

George G. Adams
College of Engineering
Distinguished Professor,
Mechanical and Industrial Engineering; University of California, Berkeley, PhD, 1975

## Belle Adler

Associate Professor, Journalism; Northeastern
University, MJ, 1976

## Gordon Adomdza

Postdoctoral
Research/Teaching Associate,
Entrepreneurship and
Innovation; University of
Waterloo (Canada), PhD, 2008
Sophia Ainslie
Lecturer, Art + Design; School of the Museum of Fine Arts/Tufts University, MFA, 2001
M. Shahid Alam

Professor, Economics;
University of Western Ontario
(Canada), PhD, 1979
Todd M. Alessandri
Associate Professor, International Business and Strategy; University of North Carolina, Chapel Hill, PhD, 2002

Nicole N. Aljoe
Assistant Professor, English; Tufts University, PhD, 2005

## Mathew Allen

Assistant Professor, Entrepreneurship and
Innovation; Cornell University, PhD, 2006

Neil O. Alper
Associate Professor, Economics; University of Pittsburgh, PhD, 1977

Akram N. Alshawabkeh
Professor, Civil and
Environmental Engineering;
Louisiana State University, PhD, 1994

## George O. Alverson

Associate Professor, Physics;
University of Illinois, UrbanaChampaign, PhD, 1979

Steve L. Alves
Associate Clinical Professor,
Nursing; University of Rhode
Island, PhD, 2002

## Hortensia Amaro

Distinguished Professor,
Counseling and Applied
Educational Psychology and Health Sciences; University of California, Los Angeles, PhD, 1982

Mansoor M. Amiji
Professor, Pharmaceutical Sciences; Purdue University, PhD, 1992

James S. Anderson
Lecturer, Music; Berklee
College of Music, BM, 1974

## Teiichi Ando

Professor, Mechanical and Industrial Engineering;
Colorado School of Mines, PhD, 1982

## Rae Andre

Professor, Management and Organizational Development; University of Michigan, PhD, 1980

## Edwin C. Andrews

Associate Professor, Art +
Design; Indiana University, MFA, 1982

## Helen Anis

Clinical Instructor, SpeechLanguage Pathology and Audiology; Northeastern University, MPA, 1986

## Arnold Arluke

Professor, Sociology and
Anthropology; New York
University, PhD, 1978
Carmen G. Armengol
Associate Professor,
Counseling and Applied
Educational Psychology;
Pennsylvania State University, PhD, 1985

Jane F. Aroian
Associate Professor, Nursing; Northeastern University, EdD, 1986

Susan Asai
Associate Professor, Music; University of California, Los Angeles, PhD, 1988

Javed A. Aslam
Professor, Computer and Information Science; Massachusetts Institute of Technology, PhD, 1995

Nicholas Athanassiou
Associate Professor, International Business and Strategy; University of South Carolina, PhD, 1995

## George Atkinson

Assistant Professor, Health
Sciences; Boston University, EdD, 1980

Joseph L. Ayers
Professor, Biology; University
of California, Santa Cruz, PhD, 1975

## Lynn Babington

Associate Professor, Nursing; University of Washington, PhD, 1995

Kenneth P. Baclawski
Associate Professor, Computer and Information Science; Harvard University, PhD, 1976

## Mardges Bacon

Matthews Distinguished
University Professor,
Architecture; Brown University, PhD, 1978

## Rekha Bai

Lecturer, Mathematics; University of Iowa, PhD, 1995

Richard H. Bailey
Professor, Earth and Environmental Sciences; University of North Carolina, Chapel Hill, PhD, 1973

Ronald W. Bailey
Professor, African-American Studies and History; Stanford
University, PhD, 1979
Ramaiya Balachandra
Professor, Information, Operations, and Analysis; Columbia University, PhD, 1975

## Sandra Baldinger

Assistant Clinical Professor, Pharmacy Practice; University
of California, San Francisco, PharmD, 1994

Mary B. Ballou
Professor, Counseling and
Applied Educational
Psychology; Kent State
University, PhD, 1976
Charles Bame-Aldred
Assistant Professor,
Accounting; University of Massachusetts, Amherst, PhD, 2004

## Elitsa Banalieva

Assistant Professor,
International Business and Strategy; Indiana University, PhD, 2007

## Brendan D. Bannister

Associate Professor,
Management and
Organizational Development;
Kent State University, DBA, 1983

Arun Bansil
Professor, Physics and Education; Harvard University, PhD, 1974

Albert-Laszlo Barabasi Professor, Physics; Boston University, PhD, 1994

Medhi Baradaran Tahoori
Associate Professor, Electrical and Computer Engineering; Stanford University, PhD, 2003

## Emanuela Barberis

Associate Professor, Physics; University of California, Santa Cruz, PhD, 1996

## Gloria Barczak

Professor, Marketing; Syracuse University, PhD, 1987

## Fleura Bardhi

Assistant Professor and Riesman Research Professor, Marketing; University of Nebraska, Lincoln, PhD, 2004

## Judith T. Barr

Associate Professor, Pharmacy Practice; Harvard University, ScD, 1987

Amílcar A. Barreto Jr.
Associate Professor, Political Science; State University of New York, Buffalo, PhD, 1995

## Stefano Basagni

Associate Professor, Electrical and Computer Engineering; University of Texas, Dallas, PhD, 2001

## Marla Baskerville

Assistant Professor,
Management and
Organizational Development;
Tulane University, PhD, 2008

## Linnea M. Basu

Assistant Cooperative
Education Coordinator, College of Arts and Sciences; Northeastern University, MS, 2008

Michelle A. Beauchesne Associate Professor, Nursing; Boston University, DNSc, 1989

## Gail S. Begley

Assistant Academic Specialist, Biology; Boston University, PhD, 1995

## Kerri Beiswenger

Assistant Cooperative
Education Coordinator,
College of Engineering;
Northeastern University, BS, 2005

Mary Benham-Hutchins
Assistant Professor, Nursing; University of Arizona, PhD, 2007

James C. Benneyan
Associate Professor, Mechanical and Industrial Engineering; University of Massachusetts, Amherst, PhD, 1997

## Iris Berent

Professor, Psychology; University of Pittsburgh, PhD, 1993

## Kostia Bergman

Associate Professor, Biology and Education; California Institute of Technology, PhD, 1972

## Dionisio Bernal

Associate Professor, Civil and Environmental Engineering; University of Tennessee, PhD, 1979

Eugene A. Bernstein
Lecturer, Pharmaceutical Sciences; Ivanovo Medical Institute (Russia), PhD, 1974

## Samuel J. Bernstein

Professor, English; Brandeis
University, PhD, 1964

## Craig T. Bettinson

Assistant Cooperative Education Coordinator, College of Arts and Sciences; Northeastern University, MEd, 1987

Penny Beuning
Assistant Professor, Chemistry and Chemical Biology; University of Minnesota, $P h D$, 2000

## Timothy Bickmore

Assistant Professor, Computer and Information Science;
Massachusetts Institute of Technology, PhD, 2003

## Ricardo Binetti

Assistant Academic Specialist, World Languages Center; University of Massachusetts, Amherst, 1996

Allan Bird
Brodsky Trustee Professor of Global Business, International Business and Strategy; University of Oregon, $P h D$, 1988

## Donna M. Bishop

Professor, Criminal Justice; State University of New York, Albany, PhD, 1982

Samuel J. Blank
Professor, Mathematics; Brandeis University, PhD, 1967

## Robert J. Blaser

Associate Cooperative Education Coordinator, Bouvé College of Health Sciences; Massachusetts College of Pharmacy, MS, 1983

Francis C. Blessington
Professor, English; Brown
University, PhD, 1972
Martin L. Block
Associate Professor,
Psychology; University of
Pittsburgh, PhD, 1971

## Jessica Blom-Hoffman

Associate Professor, Counseling and Applied
Educational Psychology;
Lehigh University, PhD, 2001

## Barry Bluestone

Russell B. and Andrée B. Stearns Trustee Professor of Political Economy, Sociology and Anthropology and Political Science; University of
Michigan, PhD, 1974

## Linda M. Blum

Associate Professor, Sociology and Anthropology; University of California, Berkeley, PhD, 1987

## Rhonda M. Board

Associate Professor, Nursing; Ohio State University, $P h D$, 1999

## Janet Bobcean

Associate Professor, Theatre; Ohio University, MFA, 1977

## Charles Bognanni

Senior Cooperative Education Coordinator, College of
Business Administration;
Northeastern University, MEd, 1979

## Norman R. Boisse

Associate Professor, Pharmaceutical Sciences; Cornell University, PhD, 1976

Paul J. Bolster
Professor, Finance and Insurance; Virginia Polytechnic Institute, PhD, 1985

## Jeffery A. Born

Professor, Finance and
Insurance; University of North
Carolina, Chapel Hill, PhD, 1986

## Christopher J. Bosso

Professor, Political Science; University of Pittsburgh, PhD, 1985

Ekaterina Botchkovar
Assistant Professor, Criminal
Justice; North Carolina State University, PhD, 2005

## Alma L. Bournazian

Associate Academic Specialist, World Languages Center; Western Maryland College, MS, 1992

## Carla Bouwmeester

Assistant Clinical Professor, Pharmacy Practice; Massachusetts College of
Pharmacy, PharmD, 2002

## David P. Boyd

Professor, Management and Organizational Development; Oxford University (United Kingdom), PhD, 1973

## Nicole M. Boyson

Assistant Professor, Finance and Insurance; Ohio State University, PhD, 2003

## Matthew Bracken

Assistant Professor, Biology;
Oregon State University, PhD, 2003

## Ann Brady

Associate Cooperative Education Coordinator, College of Business Administration; Northeastern
University, MS, 1992

## David P. Brady

Associate Professor, Electrical and Computer Engineering, Princeton University, $P h D$, 1990

## Maxim Braverman

Associate Professor, Mathematics; Tel Aviv University (Israel), PhD, 1997

## Marcus J. Breen

Associate Professor, Communication Studies; Victoria University of Technology, Melbourne (Australia), PhD, 1996

Janet Briand-McGowan
Clinical Instructor, Nursing;
Boston College, MS, 1983

## Amy M. Briesch

Assistant Professor, Counseling and Applied Educational Psychology; University of
Connecticut, PhD, 2009

## Chester L. Britt

Associate Professor, Criminal Justice; University of Arizona, PhD, 1990

## Elizabeth C. Britt

Associate Professor, English;
Rensselaer Polytechnic
Institute, PhD, 1997

## Bonnie Brock

Associate Cooperative Education Coordinator, College of Business Administration; University of Vermont, MEd, 1975

## Oscar T. Brookins

Associate Professor, Economics; State University of New York, Buffalo, PhD, 1976

## Dana H. Brooks

Professor, Electrical and Computer Engineering; Northeastern University, PhD, 1991

## Kimberly J. Brown

Assistant Professor, English; Yale University, PhD, 2006

Leonard L. Brown
Associate Professor, African-
American Studies and Music;
Wesleyan University, $P h D$, 1989

## Michael E. Brown

Professor, Sociology and
Anthropology; University of Michigan, JD, 1960, PhD, 1964

Timothy S. Brown
Assistant Professor, History; University of California, Berkeley, PhD, 2000

## Todd A. Brown

Clinical Instructor, Pharmacy
Practice; Northeastern
University, MHP, 1994
Sharon M. Bruns
Professor, Accounting; Georgia
State University, PhD, 1981
William J. Bruns
Lecturer, Accounting;
University of California, PhD, 1963

David E. Budil
Associate Professor, Chemistry and Chemical Biology;
University of Chicago, PhD, 1986

Edward A. Bullins
Distinguished Artist in Residence, Center for the Arts; San Francisco State University, MFA, 1994

Kathy Bungay
Associate Professor, Pharmacy
Practice; Philadelphia College
of Pharmacy, PharmD, 1990

## Jeffrey Burds

Associate Professor, History;
Yale University, PhD, 1990
Stephen D. Burgard
Associate Professor, Journalism; Boston University, MS, 1976

Lynn H. Burke
Associate Cooperative
Education Coordinator, College of Arts and Sciences; University of Massachusetts, Amherst, MEd, 1999

## L. Gerald Bursey

Associate Professor, Political Science; Harvard University, PhD, 1957

Ahmed A. Busnaina
William Lincoln Smith Professor of Mechanical Engineering, Mechanical and Industrial Engineering; Oklahoma State University, PhD, 1983

## Vincent K. Butler

Associate Academic Specialist, Computer Engineering Technology; Boston University, MS, 1981

## Ki-Young Byun

Assistant Academic Specialist, Chemistry and Chemical Biology; Emory University, PhD, 2001

Lawrence P. Cahalin
Clinical Instructor, Physical
Therapy; University of Iowa, MS, 1992

Erin Callery
Associate Cooperative Education Coordinator, College of Business
Administration; University of Massachusetts, Amherst, BS, 1998

Connie Lorette Calvin
Clinical Instructor, Nursing;
Northeastern University, MS, 1996

## Ballard C. Campbell

Professor, History; University of Wisconsin, Madison, PhD, 1970

Joan Campbell
Lecturer, Mathematics; Northeastern University, BS, 1992

## Robert Campbell

Assistant Professor, Pharmaceutical Sciences; University of Buffalo, PhD, 1999

Octavia Camps
Professor, Electrical and
Computer Engineering;
University of Washington, PhD, 1992

Alicia A. Canali
Senior Cooperative Education Coordinator, Bouvé College of Health Sciences; Northeastern University, MEd, 1978

Paul K. Canavan
Assistant Professor, Physical
Therapy; University of
Connecticut, PhD, 2003

## Mira Cantor

Professor, Art + Design;
University of Illinois, Urbana-
Champaign, MFA, 1969
Michele Cao-Danh
Associate Academic Specialist,
World Languages Center;
Boston University, PhD, 2001

## Luca Caracoglia

Assistant Professor, Civil and Environmental Engineering; University of Trieste (Italy), PhD, 2001

## Mary Carney

Associate Cooperative
Education Coordinator, Bouvé
College of Health Sciences;
Boston College, MSN, 1990

## Jonathan Carr

Lecturer, Theatre; Columbia
University, MFA, 2002

## Rebecca L. Carrier

Assistant Professor, Chemical Engineering; Massachusetts Institute of Technology, PhD, 2000

## Holly M. Carter

Associate Professor, Education; Massachusetts Institute of Technology, PhD, 1978

## Robert W. Case

Professor, Mathematics and Education; Yeshiva University (Israel), PhD, 1966

## John Casey

Associate Professor, Computer
and Information Science;
Boston College, BA, 1963

## Gianluca Caterina

Postdoctoral Teaching
Associate, Mathematics; Tufts
University, PhD, 2007

## Robert J. Cersosimo

Associate Professor, Pharmacy
Practice; University of Utah, PharmD, 1980

## Carlos A. Cuevas

Assistant Professor, Criminal
Justice; Alliant International
University, PhD, 2004

## Amiya Chakravarty

Philip R. McDonald Chaired
Professor, Information, Operations, and Analysis; London School of Economics
(United Kingdom), PhD, 1976
Paul M. Champion
Professor, Physics; University of Illinois, Urbana-Champaign, PhD, 1975

## Agnes H. Chan

Professor, Computer and Information Science; Ohio State
University, PhD, 1975

## Robin M. Chandler

Associate Professor, African-
American Studies; Northeastern
University, PhD, 1992
Francois Charvet
Assistant Professor, Information, Operations, and Analysis; Ohio State University, PhD, 2008

Sangit Chatterjee
Professor, Information, Operations, and Analysis; New York University, PhD, 1973

Donald P. Cheney
Associate Professor, Biology; University of South Florida, PhD, 1975

## Elizabeth A. Chilvers

Associate Professor, Cooperative Education, College of Business Administration; Northeastern University, MEd, 1973

## Chia-Hung Chou

Assistant Professor, Pharmacy Practice; University of Wisconsin, Madison, PharmD, 2006

## Kaushik Roy Chowdhury

Assistant Professor, Electrical and Computer Engineering; University of Cincinnati, MS, 2006

## Ken Chung

Assistant Academic Specialist, Chemistry and Chemical
Biology; Michigan State
University, PhD, 1985

## Y. Barry Chung

Professor, Counseling and Applied Educational Psychology; University of Illinois, PhD, 1996

John W. Cipolla Jr. Donald W. Smith Professor of Mechanical Engineering and
College of Engineering Distinguished Professor, Mechanical and Industrial Engineering; Brown University, PhD, 1970

## Josue David Cisneros

Assistant Professor, Communication Studies; University of Georgia, PhD, 2009

## Bruce H. Clark

Associate Professor and Murphy Family Research Fellow, Marketing; Stanford
University, PhD, 1993

## Edmund L. Clark

Associate Academic Specialist, Entrepreneurship and
Innovation; Clark University, MBA, 1994

## Kalo Clarke

Assistant Academic Specialist, English; University of Iowa, MFA, 1993

## Sandra S. Cleveland

Associate Clinical Professor, Speech-Language Pathology and Audiology; Pennsylvania College of Optometry School of Audiology, AuD, 2004

William D. Clinger
Associate Professor, Computer and Information Science; Massachusetts Institute of Technology, PhD, 1981

## Perrin S. Cohen

Associate Professor, Psychology; Columbia University, PhD, 1967

Dennis R. Cokely
Professor, American Sign
Language, Languages,
Literatures, and Cultures, and
World Languages Center;
Georgetown University, PhD, 1984

## Jennifer Rivers Cole

Associate Academic Specialist, Earth and Environmental Sciences; Syracuse University, PhD, 1999

John D. Coley
Associate Professor, Psychology; University of Michigan, PhD, 1993
C. Randall Colvin Associate Professor, Psychology; University of Illinois, Urbana-Champaign, PhD, 1991

Richard C. Conley
Assistant Cooperative Education Coordinator, College of Criminal Justice; Boston University, JD, 1991

## Alison Cook

Assistant Cooperative
Education Coordinator,
College of Engineering; Suffolk
University, MEd, 2008
Gene D. Cooperman
Professor, Computer and
Information Science; Brown
University, PhD, 1978
Debra Copeland
Assistant Clinical Professor, Pharmacy Practice; University
of Rhode Island, PharmD, 1994
Marie B. Corkery
Associate Clinical Professor,
Physical Therapy; Northeastern
University, DPT, 2007
Michael D. Cottrill
Lecturer, Accounting; Virginia
Polytechnic Institute, MAC, 1975

## Erin Cram

Assistant Professor, Biology; University of California, Berkeley, PhD, 2000

## Frederick Crane

Associate Academic Specialist, Entrepreneurship and
Innovation; Bradford
University, PhD, 1987
William F. Crittenden
Professor, International
Business and Strategy; University of Arkansas, PhD, 1982

## Paul Croke

Assistant Academic Specialist, Management and
Organizational Development;
Rensselaer Polytechnic
Institute, PhD, 1969
Elizabeth C. Cromley
Professor, Architecture; City University of New York, PhD, 1982

## William Crotty

Thomas P. O'Neill Chair of Public Life, Political Science; University of North Carolina, Chapel Hill, PhD, 1964

Thomas P. Cullinane
Professor, Mechanical and Industrial Engineering; Virginia Polytechnic Institute and State University, PhD, 1972

Julie M. Curtis
Associate Professor, Art + Design; Yale University, MFA, 1975

## Kamran M. Dadkhah

Associate Professor, Economics; Indiana University, PhD, 1975

Elise J. Dallimore
Associate Professor,
Communication Studies; University of Washington, PhD, 1998

James D. Dana Jr.
Professor, Economics and
International Business and
Strategy; Massachusetts
Institute of Technology, PhD,
1988
Nicholas Daniloff
Professor, Journalism; Oxford University (United Kingdom),
MA, 1965

Keith N. Darrow
Assistant Clinical Professor, Speech-Language Pathology and Audiology; Massachusetts Institute of Technology, PhD, 2006

## Geoffrey Davies

Matthews Distinguished University Professor, Chemistry and Chemical Biology; Birmingham University (United Kingdom), PhD, 1966, DSc, 1987

## Frederick C. Davis

Professor, Biology; University
of Texas, Austin, PhD, 1980

## Leslie Day

Assistant Clinical Professor, Physical Therapy; Northeastern
University, PhD, 2009
William J. DeAngelis
Associate Professor, Philosophy and Religion; Cornell University, PhD, 1970

Adenekan (Nick) Dedeke Visiting Lecturer, Information, Operations, and Analysis; Technische Universität Kaiserslautern (Germany), PhD, 1997

## Irem Demirkan

Assistant Professor, International Business and Strategy; University of Texas, Dallas, PhD, 2007

## Anthony P. De Ritis

Professor, Music and Multimedia Studies; University of California, Berkeley, PhD, 1997

## Peter Desnoyers

Assistant Professor, Computer and Information Science; University of Massachusetts, Amherst, PhD, 2008

## David A. DeSteno

Associate Professor, Psychology; Yale University, PhD, 1996

## Richard C. Deth

Professor, Pharmaceutical Sciences; University of Miami (Florida), PhD, 1975

## H. William Detrich

Professor, Biology; Yale
University, PhD, 1979
Anthony J. Devaney
College of Engineering Distinguished Professor, Electrical and Computer
Engineering; University of Rochester, PhD, 1971

## John Devlin

Associate Professor, Pharmacy
Practice; University of Toronto
(Canada), PharmD, 1996

## Janet Dewan

Clinical Instructor, Nursing;
New York Medical College, MS, 1972

## Jacqueline Diani

Senior Cooperative Education
Coordinator, Bouvé College of Health Sciences; University of Virginia, MEd, 1989

## William T. Dickins

Professor, Economics and the School of Social Science, Urban Affairs, and Public Policy; Massachusetts Institute of Technology, PhD, 1981

## Margaret Dickinson

Lecturer, Human Services; Antioch College, MEd, 1978

## Max Diem

Professor, Chemistry and Chemical Biology; University of Toledo, PhD, 1976

Elizabeth Maddock Dillon
Associate Professor, English; University of California, Berkeley, PhD, 1995

## Rosemarie DiMarco

Senior Cooperative Education Coordinator, Bouvé College of Health Sciences; Northeastern University, MS, 1976

## Charles DiMarzio

Associate Professor, Electrical and Computer Engineering; Northeastern University, PhD, 1996

## Paul DiMilla

Associate Academic Specialist, Chemistry and Chemical Biology; University of Pennsylvania, PhD, 1991

Aidong Adam Ding
Associate Professor,
Mathematics; Cornell
University, PhD, 1996
Margarita V. DiVall
Associate Clinical Professor, Pharmacy Practice; Northeastern University, PharmD, 1999

Mehmet R. Dokmeci
Assistant Professor, Electrical and Computer Engineering; University of Michigan, PhD, 2000

## Shawn Dolansky

Assistant Professor, Philosophy
and Religion; University of California, San Diego, PhD, 2002

Silvia Dominguez
Assistant Professor, Sociology
and Anthropology; Boston
University, PhD, 2005

## Hua Dong

Assistant Academic Specialist, World Languages Center; Emerson College, MA, 1995

## Timothy R. Donovan

Associate Professor, English;
University of Wisconsin,
Madison, PhD, 1973
Sara K. Doris
Assistant Professor, Art +
Design; Northwestern
University, PhD, 1999

## Brenda Douglas

Clinical Instructor, Nursing; Northeastern University, MS, 2001

## Daniel Douglass

Lecturer, Earth and Environmental Sciences; University of Wisconsin, Madison, PhD, 2005

## Mark Douglass

Assistant Clinical Professor, Pharmacy Practice; University of Michigan, PharmD, 1997

## Kevin M. Drakulich

Assistant Professor, Criminal Justice; University of Washington, PhD, 2009

## Stanislav Dubrovskiy

Postdoctoral Teaching
Associate, Mathematics; Northeastern University, PhD, 2004

## D. Kerry Dugan

Lecturer, Philosophy and
Religion; Northeastern
University, MEd, 1972
Michael S. Dukakis
Distinguished Professor, Political Science; Harvard University, JD, 1960

Daniel M. Dulaski
Assistant Academic Specialist, Civil and Environmental Engineering; University of Massachusetts, Amherst, PhD, 2005

## Catherine Dunand

Assistant Academic Specialist,
World Languages Center;
Boston University, MA, 1998

## Denise Dunlap-Hinkler

Assistant Professor,
International Business and Strategy; Temple University, PhD, 2006

Dan T. Dunn Jr.
Associate Professor,
Marketing; University of Virginia, DBA, 1976

## Douglas F. Durant

Lecturer, Music; Brandeis
University, PhD, 1988
Jennifer G. Dy
Associate Professor, Electrical and Computer Engineering;
Purdue University, PhD, 2001
Alan W. Dyer
Associate Professor, Economics; University of Maryland, PhD, 1982

Kimberly Ann Eddleston
Associate Professor and
Tarcia/Edwards Research
Fellow, Entrepreneurship and
Innovation; University of
Connecticut, PhD, 2001

## Roger Edwards

Assistant Professor, Pharmacy
Practice and Health Sciences;
Harvard School of Public
Health, ScD, 1995

## Jean F. Egan

Associate Cooperative Education Coordinator, College of Criminal Justice; Northeastern University, MEd, 1978

## Stanley J. Eigen

Professor, Mathematics; McGill University (Canada), PhD, 1982

## John Engen

Associate Professor, Chemistry and Chemical Biology and the Barnett Institute; University of Nebraska, Lincoln, PhD, 1999

## Michael J. Epstein

Assistant Professor, SpeechLanguage Pathology and Audiology; Northeastern University, PhD, 2004

## Slava S. Epstein

Professor, Biology; Moscow
State University (Russia), PhD, 1986

## Deniz Erdogmus

Assistant Professor, Electrical and Computer Engineering;
University of Florida,
Gainesville, PhD, 2002

## Mark W. Erickson

Associate Cooperative Education Coordinator, College of Computer and Information Science; Northeastern University, MEd, 1987

## Rhea T. Eskew

Professor, Psychology; Georgia Institute of Technology, PhD, 1983

## Virginia Eskin

Visiting Artist, Music; Trinity College at London University (United Kingdom), BA, 1958

Daniel R. Faber
Professor, Sociology and Anthropology; University of California, Santa Cruz, PhD, 1989

## Luis M. Falcón

Professor, Sociology and Anthropology; Cornell
University, PhD, 1987

## Olubunmi Faleye

Associate Professor and Mullin Research Fellow, Finance and Insurance; University of Alberta (Canada), PhD, 2002

## Hillary Farber

Assistant Professor, Criminal
Justice; Northeastern
University, JD, 1992

## Nasser S. Fard

Associate Professor, Mechanical and Industrial Engineering; University of Arizona, PhD, 1982

## Marcelo Febo

Assistant Professor, Psychology; University of Puerto Rico, PhD, 2002

Allen G. Feinstein Assistant Academic Specialist, Music; New England Conservatory of Music, MM, 1990

## Harriett J. Fell

Professor, Computer and Information Science; Massachusetts Institute of Technology, PhD, 1969

## Matthias Felleisen

Trustee Professor, Computer and Information Science; Indiana University, PhD, 1987

Craig F. Ferris
Professor, Psychology and Pharmaceutical Sciences; New York Medical College, PhD, 1979

## Maxim B. Fetissenko

Postdoctoral Teaching
Associate, Communication
Studies; Florida State University, Tallahassee, PhD, 2004

## Larry A. Finkelstein

Professor, Computer and Information Science; University of Birmingham (United Kingdom), PhD, 1970

Joan Fitzgerald
Professor, Education; Pennsylvania State University, PhD, 1988

Diane F. Fitzpatrick
Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2006

Peggy L. Fletcher
Lecturer, Finance and Insurance; University of
Pittsburgh, MBA, 1971

## Mary Florentine

Matthews Distinguished
University Professor, Speech-
Language Pathology and
Audiology; Northeastern
University, PhD, 1978

## Marcial Flores

Assistant Academic Specialist,
World Languages Center;
Boston College, MA, 2001

## Murray Forman

Associate Professor, Communication Studies; McGill University (Canada), PhD, 1997

## Walter B. Forrest

Assistant Professor, Criminal
Justice; Florida State
University, MS, 2004

## David A. Forsyth

Professor, Chemistry and
Chemical Biology; University
of California, Berkeley, PhD, 1973

## Lisa M. Foster

Assistant Cooperative
Education Coordinator, Bouvé
College of Health Sciences;
Northeastern University, MS, 1998

Charles F. Fountain
Associate Professor, Journalism; Columbia
University, MS, 1983
William M. Fowler Jr.
Distinguished Professor,
History; University of Notre
Dame, PhD, 1971
James Alan Fox
Lipman Family Professor, Criminal Justice; University of Pennsylvania, PhD, 1976

Laura L. Frader
Professor, History; University
of Rochester, PhD, 1978

## John N. Frampton

Associate Professor,
Mathematics; Yale University, PhD, 1965

Debra L. Franko
Professor, Counseling and
Applied Educational
Psychology; McGill University
(Canada), PhD, 1986

## Kimberly Freeman

Postdoctoral Teaching
Associate, English; University
of Connecticut, PhD, 2001

## Susan Freeman

Senior Academic Specialist,
Engineering; Northeastern
University, PhD, 1996

## Michael Frengel

Associate Academic Specialist, Music; City University, London (United Kingdom), PhD, 2005

John H. Friar
Senior Academic Specialist, Entrepreneurship and Innovation and Technological Entrepreneurship; Massachusetts Institute of Technology, PhD, 1987

## Natasha Frost

Assistant Professor, Criminal Justice; City University of New York, PhD, 2004

Peter G. Furth
Professor, Civil and
Environmental Engineering;
Massachusetts Institute of Technology, PhD, 1981

## Robert P. Futrelle

Associate Professor, Computer
and Information Science;
Massachusetts Institute of
Technology, PhD, 1966
John L. Gabriel
Assistant Cooperative
Education Coordinator,
College of Engineering;
National Technical University, MS, 1998

Terence J. Gaffney
Professor, Mathematics;
Brandeis University, PhD, 1976

## Timothy Gagnon

Assistant Academic Specialist, Accounting; Sacred Heart
University, MBA, 1988

## Chris W. Gallagher

Professor, English; University of New York, Albany, PhD, 1998

## Ann M. Galligan

Associate Professor, Cooperative Education, College of Arts and Sciences; Columbia University, EdD, 1989

## Tao (Tony) Gao

Assistant Professor, Marketing; Virginia Polytechnic Institute, PhD, 1998

## Denise Garcia

Assistant Professor, Political Science and International Affairs; University of Geneva (Switzerland), PhD, 2005

## Roseanna Garcia

Assistant Professor and McCarthy Family Research Fellow, Marketing; Michigan State University, PhD, 2002

## Lori Gardinier

Assistant Academic Specialist,
Human Services; Northeastern University, PhD, 2005

## Karen Garneau

Postdoctoral Teaching Associate, English; Northeastern University, PhD, 2001

## Samuel John Gately

Professor, Pharmaceutical Sciences; University Newcastle Upon Tyne (United Kingdom), PhD, 1975

## Nancy Geoffrion

Associate Cooperative Education Coordinator, College of Arts and Sciences; Suffolk University, MEd, 1986

Walter M. Gershuny
Associate Professor, Languages, Literatures, and Cultures; Harvard University, PhD, 1977

Roger W. Giese
Professor, Pharmaceutical Sciences; Massachusetts Institute of Technology, PhD, 1969

Bill C. Giessen
Professor, Chemistry and Chemical Biology; University of Gottingham (Germany), ScD, 1958

## Joseph M. Giglio

Senior Academic Specialist, International Business and Strategy; Northeastern
University, PhD, 2003
Robert E. Gilbert
Professor, Political Science; University of Massachusetts, Amherst, PhD, 1967

Thomas R. Gilbert
Associate Professor, Chemistry and Chemical Biology and Education; Massachusetts Institute of Technology, PhD, 1971

William J. Gillespie
Associate Professor, Health Sciences; Boston University, EdD, 1977

Christina Gilmartin
Associate Professor, History and Languages, Literatures, and Cultures; University of Pennsylvania, PhD, 1986

## Leonard J. Glick

Senior Academic Specialist, Management and Organizational Development; Harvard University, EdD, 1972

Carol A. Glod
Professor, Nursing; Boston College, PhD, 1994

## Veronica Godoy

Assistant Professor, Biology;
Tufts University School of Medicine, PhD, 1995

Richard J. Goettle
Lecturer, Finance and
Insurance; University of Cincinnati, PhD, 1975

Haim Goldberg
Professor, Physics;
Massachusetts Institute of
Technology, PhD, 1963
Donald Goldthwaite
Assistant Academic Specialist, Engineering; Northeastern University, MS, 1996

Ann C. Golub-Victor
Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2006

Michael J. Gonyeau Associate Clinical Professor, Pharmacy Practice; Albany College of Pharmacy, PharmD, 1999

Gregory Goodale
Assistant Professor,
Communication Studies;
University of Illinois, Urbana-
Champaign, PhD, 2007
Pamela W. Goodale
Associate Cooperative Education Coordinator, College of Arts and Sciences; Boston College, MA, 1981

## Gary Goshgarian

Professor, English; University of Wisconsin, Madison, PhD, 1965

## Andrew Gouldstone

Assistant Professor,
Mechanical and Industrial Engineering; Massachusetts Institute of Technology, PhD, 2001

## Eugene H. Gover

Associate Professor,
Mathematics; Brandeis
University, PhD, 1970
Harvey Green
Professor, History; Rutgers
University, PhD, 1976

## Laura Green

Associate Professor, English; University of California,
Berkeley, PhD, 1994
Jack R. Greene
Professor, Criminal Justice;
Michigan State University,
PhD, 1977
Deborah F. Greenwald
Associate Professor, Counseling and Applied Educational Psychology; University of Michigan, PhD, 1977

Daniel S. Gregory
Academic Specialist,
Technological
Entrepreneurship; Harvard
University, MBA, 1986

## Christopher Grimley

Lecturer, Architecture;
University of British Columbia
(Canada), MArch, 2000

## David Grotell

Assistant Academic Specialist, Cinema Studies; Columbia
University, MFA, 1996

## April Gu

Assistant Professor, Civil and Environmental Engineering;
University of Washington, PhD, 2003

## Surendra M. Gupta

Professor, Mechanical and Industrial Engineering; Purdue
University, PhD, 1977

## Samuel Gutmann

Associate Professor, Mathematics; Massachusetts Institute of Technology, PhD, 1977

Mohamed Habibullah
Lecturer, Information, Operations, and Analysis;
University of Missouri, Columbia, PhD, 1988

## Carole D. Hafner

Associate Professor, Computer and Information Science; University of Michigan, PhD, 1978

## Arshag B. Hajian

Professor, Mathematics; Yale
University, PhD, 1957

## Judith A. Hall

College of Arts and Sciences
Distinguished Professor,
Psychology; Harvard
University, PhD, 1976

## Robert L. Hall

Associate Professor, African-
American Studies and History;
Florida State University, PhD, 1984

## William S. Hancock

Raymond and Claire Bradstreet Chair, Chemistry and Chemical Biology; University of Adelaide (Australia), PhD, 1970

Michael J. Handel
Associate Professor, Sociology and Anthropology; Harvard University, PhD, 2000

Richard Hanna
Assistant Professor, Marketing;
Boston University, DBA, 2003
Eric W. Hansberry
Associate Professor, Mechanical Engineering Technology; Northeastern University, MS, 1982

## Robert N. Hanson

Matthews Distinguished University Professor, Chemistry and Chemical Biology; University of California, Berkeley, PhD, 1973

## Kirsten Hardy

Assistant Professor, Political Science; University of California, Berkeley, PhD, 2005

Stephen G. Harkins
Professor, Psychology; University of Missouri, PhD, 1975

## Paul Harrington

Associate Professor, Education and Law, Policy, and Society; University of Massachusetts, Boston, EdD, 1998

## Maureen Harris

Assistant Clinical Professor, Physical Therapy; Simmons College, DPT, 2007

## Meredith H. Harris

Associate Professor, Physical Therapy; Columbia University, EdD, 1981

## Vincent Harris

William Lincoln Smith
Professor of Electrical and Computer Engineering, Electrical and Computer Engineering; Northeastern University, PhD, 1990

## Thomas Havens

Professor, History and Languages, Literatures, and Cultures; University of California, Berkeley, PhD, 1965

## Lorna Hayward

Associate Professor, Physical Therapy; Boston University, EdD, 1995

## Ni He

Associate Professor, Criminal Justice; University of Nebraska, Omaha, PhD, 1997

## Inez Hedges

Stotsky Professor of Jewish
Historical and Cultural Studies and Professor of French, German, and Cinema Studies; University of Wisconsin, Madison, PhD, 1976

Ronald D. Hedlund
Professor, Political Science;
University of Iowa, PhD, 1967

## Donald E. Heiman

Professor, Physics; University of California, Irvine, PhD, 1975

## Ferdinand L. Hellweger

Assistant Professor, Civil and Environmental Engineering; Columbia University, EngScD, 2004

## Carlene Hempel

Lecturer, Journalism; University of North Carolina, Chapel Hill, MA, 1999

## David A. Herlihy

Associate Academic Specialist, Music; Boston College, JD, 1982

## Gerald H. Herman

Assistant Professor, History and Education; Northeastern University, MA, 1967

## Julie Hertenstein

Associate Professor and Altschuler Research Fellow, Accounting; Harvard
University, DBA, 1984
Mary J. Hickey
Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2009

## Ann Hill

Clinical Instructor, Nursing;
Syracuse University, MS, 1976

## Malcolm D. Hill

Associate Professor, Earth and Environmental Sciences;
University of California, Santa Cruz, PhD, 1979

## Nancy Hoffart

Professor, Nursing; University of Virginia, PhD, 1989

## Brian Hogan

Assistant Professor,
Accounting; Case Western
Reserve University, PhD, 2008

## Udi Hoitash

Assistant Professor, Accounting; Rutgers University, PhD, 2008

## Maureen Holden

Associate Professor, Physical Therapy; Brandeis University, PhD, 1993

## Wilfred E. Holton

Associate Professor, Sociology and Anthropology and Human Services; Boston University, PhD, 1972

## Dorett Hope

Associate Professor, Nursing; Boston University, EdD, 1978

## Michael J. Hoppmann

Postdoctoral Teaching
Associate, Communication
Studies; University of Tübingen
(Germany), PhD, 2007

## Denise M. Horn

Assistant Professor, International Affairs; Rutgers
University, PhD, 2005
Elizabeth M. Howard
Associate Professor, Nursing;
Boston College, PhD, 1986

## Deborah Hunt

Assistant Cooperative
Education Coordinator,
College of Business
Administration; Northeastern
University, MS, 2002
Matthew O. Hunt
Associate Professor, Sociology
and Anthropology; Indiana
University, PhD, 1998
William T. Hyndman III
Assistant Cooperative
Education Coordinator,
College of Arts and Sciences;
Widener University, EdD, 2007

## Anthony Iarrobino

Professor, Mathematics;
Massachusetts Institute of
Technology, PhD, 1970

## Remi Ibraheem

Assistant Cooperative Education Coordinator, College of Arts and Sciences; New England School of
Acupuncture, MS, 2002
Patricia M. L. Illingworth
Associate Professor, Philosophy and Religion; University of California, San Diego, PhD, 1985; Boston University School of Law, JD, 1995

## Vinay K. Ingle

Associate Professor, Electrical and Computer Engineering;
Rensselaer Polytechnic
Institute, PhD, 1981

## Rei Okamoto Inouye

Associate Academic Specialist, World Languages Center; Temple University, PhD, 1999

## Roderick L. Ireland

Adjunct Associate Professor, Criminal Justice; Harvard University, LLM, 1975; Northeastern University, $P h D$, 1998

Melissa Irgens
Assistant Cooperative
Education
Coordinator/Academic Advisor, College of Computer and Information Science; Emerson College, MEd, 2005

## Jacqueline A. Isaacs

Professor, Mechanical and
Industrial Engineering;
Massachusetts Institute of
Technology, PhD, 1991
Michelle L. Israel Associate Cooperative Education Coordinator, College of Arts and Sciences; Northeastern University, MS, 1996

## Nathan Israeloff

Associate Professor, Physics;
University of Illinois, UrbanaChampaign, PhD, 1991

Cynthia M. Jackson
Associate Professor, Accounting; University of South Carolina, PhD, 1992

Denise Jackson
Associate Professor, Psychology; University of Pittsburgh, PhD, 1990

## William J. Jackson

Associate Cooperative Education Coordinator, College of Arts and Sciences; University of Massachusetts,
Boston, MEd, 2002

## Michelle Jacobs

Assistant Clinical Professor, Pharmacy Practice; University of California, San Francisco, PharmD, 1995

## Joshua R. Jacobson

Professor, Music; University of Cincinnati, DMA, 1984

## Beverly Jaeger

Associate Academic Specialist, Engineering; Northeastern
University, PhD, 2001

## Nader Jalili

Associate Professor, Mechanical and Industrial Engineering; University of Connecticut, PhD, 1998

## Deborah Jancourtz

Assistant Cooperative Education Coordinator, Bouvé College of Health Sciences; Northeastern University, MS, 1987

## Paul A. Janell

Lecturer, Accounting; Michigan State University, PhD, 1974

## Leon C. Janikian

Associate Professor, Music; University of Massachusetts, Amherst, MM, 1975

Edward L. Jarroll
Professor, Biology; West
Virginia University, $P h D, 1977$
Solomon M. Jekel
Associate Professor,
Mathematics; Dartmouth
College, PhD, 1974

## Devon S. Johnson

Assistant Professor, Marketing; University of London, London School of Business (United Kingdom), PhD, 1999

Evan Johnson
Postdoctoral Teaching
Associate, Music; State
University of New York,
Buffalo, PhD, 2006
Vanessa D. Johnson
Associate Professor,
Counseling and Applied
Educational Psychology;
Western Michigan University, PhD, 1992

Graham B. Jones
Professor, Chemistry and Chemical Biology; Imperial
College of Science, Technology, and Medicine (United
Kingdom), PhD, 1989
Gwilym S. Jones
Professor, Biology; Indiana
State University, PhD, 1981
Kimberly L. Jones
Assistant Academic Specialist, International Affairs; City University of New York, Queens, JD, 1999
T. Anthony Jones

Associate Professor, Sociology
and Anthropology; Princeton
University, PhD, 1978
Dierdre Jordan
Assistant Cooperative
Education Coordinator, Bouvé
College of Health Sciences;
Northeastern University, MS, 1994

Yung Joon Jung
Assistant Professor,
Mechanical and Industrial
Engineering; Rensselaer
Polytechnic Institute, PhD, 2003

## Jeffrey S. Juris

Assistant Professor, Sociology and Anthropology; University of California, Berkeley, PhD, 2004

## David R. Kaeli

Professor, Electrical and Computer Engineering; Rutgers University, PhD, 1992

## Emily Fox Kales

Assistant Academic Specialist, Interdisciplinary Studies and Psychology; Tufts University, PhD, 1989

Sagar V. Kamarthi
Associate Professor, Mechanical and Industrial Engineering; Pennsylvania State University, PhD, 1994

## John Kane

Lecturer, Art + Design; Yale
University, BA, 1973

## Mary M. Kane

Associate Cooperative Education Coordinator, College of Business Administration; University of Massachusetts, Boston, MEd, 1996

## Stephen M. Kane

Associate Professor, Cooperative Education, College of Engineering; Northeastern University, EdD, 1981

## Carla Kaplan

Davis Distinguished Professor
of American Literature,
English; Northwestern
University, PhD, 1990
Barry L. Karger
James A. Waters Professor of Analytical Chemistry, Chemistry and Chemical Biology; Cornell University, PhD, 1963

## Alain S. Karma

College of Arts and Sciences
Distinguished Professor, Physics; University of California, Santa Barbara, PhD, 1986

Richard A. Katula
Professor, Communication
Studies and Education;
University of Illinois, Urbana-
Champaign, PhD, 1974

## Ralph Katz

Professor, Entrepreneurship and Innovation; University of
Pennsylvania, PhD, 1973

## Debra R. Kaufman

Matthews Distinguished University Professor, Sociology and Anthropology; Cornell University, PhD, 1975

William D. Kay
Associate Professor, Political Science; Indiana University, PhD, 1987

## Bret Keeling

Lecturer, English; University of Washington, PhD, 2000

## Maureen Kelleher

Associate Professor, Sociology and Anthropology; University of Missouri, Columbia, PhD, 1979

## Karen P. Kelley

Senior Cooperative Education
Coordinator, College of
Engineering; Northeastern
University, MEd, 1985

## David Kellogg

Assistant Professor, English; University of North Carolina, Chapel Hill, PhD, 1994

## Kathleen Kelly

Professor, English and
Education; University of North
Carolina, Chapel Hill, PhD, 1990

## M. Whitney Kelting

Assistant Professor, Philosophy
and Religion; University of
Wisconsin, Madison, PhD, 1996

Daniel D. Kennedy
Assistant Professor,
Journalism; Boston University, MLA, 1984

George F. Kent
Associate Cooperative Education Coordinator, College of Engineering; Northeastern University, MBA, 1979

Richard M. Kesner
Lecturer, Information, Operations, and Analysis; Stanford University, PhD, 1977

## Heidi Kevoe Feldman

Assistant Professor,
Communication Studies;
Rutgers University, PhD, 2009

## Leila Khatami

Postdoctoral Teaching
Associate, Mathematics;
University of Tehran (Iran), PhD, 2003

## Ban-An Khaw

Professor, Pharmaceutical
Sciences; Boston College, PhD, 1973

## Ilham Khuri-Makdisi

Assistant Professor, History;
Harvard University, PhD, 2004

## Patricia A. Kiladis

Clinical Instructor, Nursing; Boston University, MS, 1985

## Do Kyun Kim

Postdoctoral Teaching Associate, Communication Studies; Ohio University, PhD, 2007

## Nancy S. Kim

Assistant Professor, Psychology; Yale University, PhD, 2002

## Sungwoo Kim

Professor, Economics; University of California, Berkeley, PhD, 1967

## Yong-Bin Kim

Associate Professor, Electrical and Computer Engineering; Colorado State University, PhD, 1996

Shelley A. Kimelberg Assistant Professor, Sociology and Anthropology; Harvard University, PhD, 2007

## Nancy Kindelan

Associate Professor, Theatre; University of Wisconsin, Madison, PhD, 1977

Christopher K. King
Professor, Mathematics; Harvard University, PhD, 1981

## Donald R. King

Associate Professor, Mathematics; Massachusetts Institute of Technology, PhD, 1979

Raymond M. Kinnunen
Associate Professor, International Business and Strategy; Louisiana State University, DBA, 1974

Rein U. Kirss
Associate Professor, Chemistry and Chemical Biology; University of Wisconsin, Madison, PhD, 1986

## William Kirtz

Associate Professor, Journalism; Columbia University, MS, 1962

Jennifer L. Kirwin
Associate Clinical Professor, Pharmacy Practice; Northeastern University, PharmD, 1999

Alan M. Klein
Professor, Sociology and Anthropology; State University of New York, Buffalo, PhD, 1977

Thomas H. Koenig
Professor, Sociology and Anthropology; University of California, Santa Barbara, PhD, 1979

Mieczyslaw M. Kokar
Associate Professor, Electrical and Computer Engineering; University of Wroclaw
(Poland), PhD, 1973

## Ying-Yee Kong

Assistant Professor, SpeechLanguage Pathology and Audiology; University of California, PhD, 2004

Gila Kornfeld-Jacobs
Lecturer, Counseling and Applied Educational Psychology; State University of New York, Buffalo, PhD, 1971

## Tunde Kovacs

Assistant Professor, Finance and Insurance; Virginia Polytechnic Institute and State University, PhD, 2006

Gregory J. Kowalski
Associate Professor, Mechanical and Industrial Engineering; University of Wisconsin, Madison, PhD, 1978

Roy Kozlovsky
Assistant Professor,
Architecture; Princeton
University, PhD, 2008

## Sergey Kravchenko

Professor, Physics; Institute of Solid State Physics (Russia), PhD, 1988

## Nishan Krikorian

Associate Professor,
Mathematics; Cornell
University, PhD, 1969

Ganesh Krishnamoorthy
Associate Professor, Gerald
Feldman Research Fellow, and
Harold A. Mock Professor,
Accounting; University of
Southern California, PhD, 1994

## Karthik Krishnan

Assistant Professor, Finance and Insurance; Boston College, PhD, 2008

## Mark Kroll

Visiting Professor, Music; Yale
University, MM, 1971

## Louis J. Kruger

Associate Professor,
Counseling and Applied
Educational Psychology;
Rutgers University, PsyD, 1986
Janna Kucharski-Howard
Assistant Clinical Professor, Physical Therapy; University of Massachusetts, Lowell, DPT, 2003

## Steven R. Kursh

Associate Academic Specialist, Finance and Insurance; University of Pennsylvania, PhD, 1994

John E. Kwoka Jr. Neal F. Finnegan Chair, Economics; University of
Pennsylvania, PhD, 1972
Jamie Ladge
Assistant Professor,
Management and
Organizational Development;
Boston College, PhD, 2008

## Jay Laird

Lecturer, Multimedia Studies;
Ithaca College, BS, 1991
Venkatrama Lakshmibai
Professor, Mathematics; Tata
University (India), PhD, 1976

## Charlotte Lam

Assistant Cooperative
Education Coordinator, College of Arts and Sciences; California State University, Sacramento, MA, 1993

## Anna Lamin

Assistant Professor, International Business and
Strategy; University of
Minnesota, PhD, 2007

## Jason Lancaster

Assistant Clinical Professor, Pharmacy Practice;
Massachusetts College of
Pharmacy, PharmD, 2006
William Lancaster
Lecturer, Communication
Studies; Michigan State
University, MA, 1979

## Harlan Lane

Matthews Distinguished
University Professor,
Psychology; Harvard
University, PhD, 1960;
Université de Paris (France),
Doc. ès Lettres, 1973
Henry W. Lane
Professor, International
Business and Strategy; Harvard
University, DBA, 1977

## Paul LaPlante

Assistant Academic Specialist, World Languages Center;
Brown University, MA, 1968

## Sonya L. Larrieux

Clinical Instructor, Physical Therapy; Columbia University, MA, 1983

Felicia G. Lassk
Associate Professor,
Marketing; University of South
Florida, PhD, 1995

## Amanda Reeser Lawrence

Assistant Professor,
Architecture; Harvard
University, PhD, 2007

## Ava Lawrence

Assistant Professor, Music;
New York University, MA, 2001
David M. Lazer
Associate Professor, Political Science and College of Computer and Information Science; University of Michigan, Ann Arbor, PhD, 1996

Lindsay Leard
Lecturer, Art + Design;
Columbia University, PhD, 1992

Cynthia Lee
Professor, Management and
Organizational Development;
University of Maryland, PhD, 1984

## Jung H. Lee

Assistant Professor, Philosophy
and Religion; Brown
University, PhD, 2003
Yang W. Lee
Associate Professor, Information, Operations, and Analysis; Massachusetts Institute of Technology, PhD, 1988

Carolyn W. T. Lee-Parsons
Associate Professor, Chemical
Engineering; Cornell
University, PhD, 1995
Miriam E. Leeser
Professor, Electrical and
Computer Engineering;
Cambridge University (United
Kingdom), PhD, 1989

## Laurel Leff

Associate Professor, Journalism; Yale University, MA, 1993

Bradley M. Lehman
Professor, Electrical and
Computer Engineering;
Georgia Institute of
Technology, PhD, 1992
Patricia B. Leonard
Associate Cooperative Education Coordinator, College of Engineering; Northeastern University, MEd, 1975

## Steven Leonard

Assistant Professor, Pharmacy
Practice; Purdue University
School of Pharmacy, PharmD, 2008

## Marina Leslie

Associate Professor, English; Yale University, PhD, 1991

Hanoch Lev-Ari
Professor, Electrical and
Computer Engineering;
Stanford University, PhD, 1983
Yiannis A. Levendis
College of Engineering
Distinguished Professor, Mechanical and Industrial Engineering; California Institute of Technology, PhD, 1987

## Jack Levin

Irving S. and Betty Brudnick Distinguished Professor,
Sociology and Anthropology;
Boston University, PhD, 1968

## Matsuko Levin

Assistant Academic Specialist, World Languages Center; University of London (United Kingdom), MA, 1999

## Marc N. Levine

Professor, Mathematics; Brandeis University, PhD, 1984

## Del Lewis

Associate Professor, Theatre; University of Wisconsin,
Madison, MFA, 1976

## Kim Lewis

Professor, Biology; Moscow
University (Russia), PhD, 1980
Laura H. Lewis
Cabot Professor, Chemical Engineering; University of Texas, Austin, PhD, 1993

## Chieh Li

Associate Professor, Counseling and Applied Educational Psychology; University of Massachusetts, Amherst, EdD, 1991

## Rui Li

Assistant Clinical Professor, Health Sciences; Baylor
University, PhD, 2008
Robert C. Lieb
Professor, Information, Operations, and Analysis;
University of Maryland, DBA, 1970

Karl J. Lieberherr
Professor, Computer and Information Science; ETH
Zurich (Switzerland), PhD, 1977

## Karin N. Lifter

Professor, Counseling and Applied Educational
Psychology and Education; Columbia University, PhD, 1982

## Yingzi Lin

Assistant Professor,
Mechanical and Industrial
Engineering; University of Saskatchewan (Canada), PhD, 2003

Alisa K. Lincoln
Associate Professor, Health Sciences and Sociology and Anthropology; Columbia
University, PhD, 1998

## James Lipsky

Associate Academic Specialist, World Languages Center;
Boston University, MA, 1999

## Heather Littlefield

Assistant Academic Specialist, Linguistics; Boston University, PhD, 2005

## Kelvin Liu

Assistant Professor,
Accounting; University of South
Carolina, PhD, 2008

## Grigorios Livanis

Lecturer, Information,
Operations, and Analysis;
University of Florida, PhD, 2004

Angelica Llavata
Assistant Academic Specialist, World Languages Center;
Universidad Politecnica
Valencia (Spain), MA, 1995
Mary Loeffelholz
Professor, English; Yale
University, PhD, 1986
Fabrizio Lombardi
International Test Conference Professor, Electrical and
Computer Engineering;
University of London (United
Kingdom), PhD, 1982
Ralph H. Loring
Associate Professor,
Pharmaceutical Sciences;
Cornell University, PhD, 1980
Salim A. Lotuff III
Associate Academic Specialist, Communication Studies; Northeastern University, MA, 1997

## Tania Muino Loureiro

Assistant Academic Specialist,
World Languages Center;
University of Barcelona
(Spain), MA, 2005

## Jennifer Love

Assistant Academic Specialist, Mechanical Engineering Technology; University of Iowa, MS, 1997

## Timothy Love

Associate Professor,
Architecture; Harvard
University, MArch, 1989

## Susan Lowe

Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2007

## Robert P. Lowndes

Professor, Physics; Queen
Mary College, University of
London (United Kingdom),
PhD, 1967

## Elizabeth Lucey

Assistant Academic Specialist,
World Languages Center;
Gallaudet University, MA, 2002
Maria José Luengo-Prado
Associate Professor,
Economics; Brown University, PhD, 2000

Katherine A. Luongo
Assistant Professor, History; University of Michigan, Ann
Arbor, PhD, 2006
David E. Luzzi
Professor, Mechanical and Industrial Engineering; Northwestern University, PhD, 1986

Mervin D. Lynch
Professor, Education; University of Wisconsin, Madison, PhD, 1963

Patricia A. Mabrouk
Professor, Chemistry and
Chemical Biology;
Massachusetts Institute of
Technology, PhD, 1988
Maureen Macione
Assistant Cooperative Education Coordinator, College of Business
Administration; Boston
College, MBA, 1998

Michael J. Maggard
Professor, Information, Operations, and Analysis; University of California, Los Angeles, PhD, 1968

## Bala Maheswaran

Associate Academic Specialist, Engineering; Northeastern University, PhD, 1989

## Luigia Gina Maiellaro

 Associate Academic Specialist, World Languages Center; Russian State University for the Humanities (Russia), PhD, 1998Alexandros Makriyannis
Behrakis Trustee Chair in Pharmaceutical Biotechnology and Professor, Pharmaceutical
Sciences, and Professor, Chemistry and Chemical Biology; University of California, PhD, 1969

## Mario J. Maletta

Associate Professor and Cowan
Research Professor, Accounting; University of Massachusetts, Amherst, PhD, 1986

Mikhail Malioutov
Professor, Mathematics;
Moscow State University
(Russia), PhD, 1983

## Theresa Mangan

Assistant Cooperative Education Coordinator, College of Business Administration; Northeastern
University, MEd, 2005
James M. Manning
Professor, Biology; Tufts
University, PhD, 1966

## Peter K. Manning

Elmer V. H. and Eileen M.
Brooks Trustee Professor,
Criminal Justice; Duke
University, PhD, 1966

## Peter Manolios

Associate Professor, Computer and Information Science; University of Texas, Austin, PhD, 2001

## Edwin Marengo

Assistant Professor, Electrical and Computer Engineering; Northeastern University, PhD, 1997

Donald G. Margotta
Associate Professor, Finance and Insurance; University of North Carolina, PhD, 1984

Ruth E. MarguliesHochman
Clinical Instructor, Speech-
Language Pathology and Audiology; Emerson College, MS, 1979

## Tucker Marion

Assistant Professor, Technological Entrepreneurship;
Pennsylvania State University, PhD, 2007

Robert S. Markiewicz
Professor, Physics; University of California, Berkeley, PhD, 1975

Alycia Markowski Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2007

James J. Maroney
Associate Professor, Accounting; University of Connecticut, PhD, 1994

Wesley W. Marple Jr.
Professor, Finance and Insurance; Harvard University, DBA, 1967

Richard L. Marsh
Professor, Biology; University
of Michigan, PhD, 1979
Ineke Haen Marshall
Professor, Sociology and Anthropology and Criminal Justice; Bowling Green State University, PhD, 1977

## P. David Marshall

Professor, Communication Studies; McGill University
(Canada), PhD, 1993
Alex Martsinkovsky Associate Professor, Mathematics; Brandeis University, PhD, 1987

Emanuel J. Mason
Professor, Counseling and
Applied Educational
Psychology and Education;
Temple University, EdD, 1972

## David Massey

Professor, Mathematics; Duke
University, PhD, 1986
Magdalena A. Mateo
Associate Professor, Nursing; Ohio State University, PhD, 1984

Elizabeth J. Matson
Assistant Professor, Journalism; Boston University, MS, 1996

## S. James Matthews

Associate Professor, Pharmacy
Practice; University of
Minnesota, PharmD, 1977

## Lea Ann Matura

Assistant Professor, Nursing;
Texas Woman's University, PhD, 2005

Lucy Maulsby
Assistant Professor, Architecture; Columbia
University, PhD, 2007
Nicole J. Maurantonio
Postdoctoral Teaching
Associate, Communication
Studies; University of
Pennsylvania, PhD, 2008
Suanne Maurer-Starks
Assistant Professor, Athletic
Training; Columbia University, EdD, 2005

Constantinos Mavroidis
Professor, Mechanical and Industrial Engineering;
University of Paris VI (France), PhD, 1993

William G. Mayer
Professor, Political Science;
Harvard University, PhD, 1989
Daniel J. McCarthy
McKim and D'Amore
Distinguished Professor of Global Management and Innovation, Entrepreneurship, and Innovation; Harvard University, DBA, 1962

Carmen McClish
Postdoctoral Teaching
Associate, Communication
Studies; University of
Massachusetts, Amherst, PhD, 2007

## Jane McCool

Assistant Clinical Professor, Nursing; University of Rhode Island, PhD, 2003

## Eileen L. McDonagh

Professor, Political Science; Harvard University, PhD, 1972

## Ann McDonald

Assistant Professor, Art +
Design and Multimedia Studies;
Yale University, MFA, 1996

## Matthew McDonald

Assistant Professor, Music;
Yale University, PhD, 2004

## Katherine McDonough

Clinical Instructor, Nursing;
Northeastern University, MS, 2001

Edward F. McDonough III
Professor, International
Business and Strategy;
University of Massachusetts, Amherst, PhD, 1981

Nicol E. McGruer
Professor, Electrical and
Computer Engineering;
Michigan State University, PhD, 1983

## Jennifer L. McIntosh

Assistant Clinical Professor, Pharmacy Practice; University
of California, San Francisco, PharmD, 2002

Stephen W. McKnight
Professor, Electrical and
Computer Engineering;
University of Maryland, $P h D$, 1977

Jay P. McLaughlin
Assistant Professor,
Psychology; University of Rochester, PhD, 1998

## Kate McLaughlin

Associate Cooperative
Education Coordinator, College of Arts and Sciences;
New York University, MA, 1994

Robert C. McOwen
Professor, Mathematics; University of California, Berkeley, PhD, 1978

## Maureen McQueeney

Assistant Clinical Professor, Pharmacy Practice; Northeastern University, PharmD, 2006

## Clay McShane

Professor, History; University of Wisconsin, Madison, PhD, 1975

Frances Nelson McSherry Associate Academic Specialist, Theatre; New York University, MFA, 1984

Bonnie S. McSorley
Associate Professor, Languages, Literatures, and Cultures; Northwestern
University, PhD, 1972
Joseph W. Meador
Professor, Finance and Insurance; University of
Pennsylvania, PhD, 1978
Maria Isabel Meirelles
Associate Professor, Art + Design; Massachusetts College of Art, MFA, 2002

Emanuel S. Melachrinoudis
Associate Professor, Mechanical and Industrial Engineering; University of Massachusetts, Amherst, PhD, 1980

## Waleed Meleis

Associate Professor, Electrical and Computer Engineering; University of Michigan, PhD , 1996

Richard H. Melloni Jr.
Associate Professor, Psychology; University of Massachusetts Medical Center, PhD, 1993

## Latika Menon

Associate Professor, Physics; Tata Institute of Fundamental Research, Bombay (India), PhD, 1997

Charles A. M. Meszoely
Professor, Biology; Boston University, PhD, 1967

## Hameed Metghalchi

Professor, Mechanical and Industrial Engineering;
Massachusetts Institute of
Technology, ScD, 1979
Marc H. Meyer
Robert J. Shillman Professor of
Entrepreneurship and
Matthews Distinguished University Professor,
Entrepreneurship and Innovation; Massachusetts Institute of Technology, PhD, 1986

Michael C. Meyer
Lecturer, Philosophy and Religion; Boston University, PhD, 1984

## Ningfang Mi

Assistant Professor, Electrical and Computer Engineering; University of Texas, Dallas, MS, 2004

William F. S. Miles
Professor, Political Science; Fletcher School of Law and Diplomacy, PhD, 1984

Robert A. Millen
Professor, Information, Operations, and Analysis; University of California, Los Angeles, PhD, 1976

Dennis H. Miller
Professor, Music; Columbia University, DMA, 1981

## Joanne L. Miller

Matthews Distinguished
University Professor, Psychology; University of
Minnesota, PhD, 1974

## Takuya Minami

Assistant Professor, Counseling and Applied Educational Psychology; University of Wisconsin, Madison, PhD, 2004

Nathalie Miquel
Assistant Cooperative
Education Coordinator, College of Business
Administration; Suffolk
University, MEd, 2005

## Alan Mislove

Assistant Professor, Computer and Information Science; Rice University, PhD, 2009

Cheryl Mitteness
Assistant Professor, Entrepreneurship and
Innovation; University of Louisville, PhD, 2009

## Keil Moe

Assistant Professor, Architecture; University of Virginia, MArch, 2002

## Shan Mohammed

Associate Professor, Health
Sciences; Case Western
Reserve University, MD, 1997

## David Monje

Assistant Professor,
Communication Studies;
University of Illinois, Urbana-
Champaign, PhD, 2006
Robert M. Mooradian
Professor, Walsh Research
Professor, and Dunton
Research Fellow, Finance and
Insurance; University of
Pennsylvania, PhD, 1989
Kimberly Moreno
Associate Professor, Accounting; University of Massachusetts, Amherst, PhD, 1998

Joanne Morreale
Associate Professor,
Communication Studies;
Temple University, PhD, 1987
Steven A. Morrison
Professor, Economics;
University of California,
Berkeley, PhD, 1979
Michaele Morrow
Assistant Professor,
Accounting; Texas Tech
University, PhD, 2008
Hossein Mosallaei
Assistant Professor, Electrical
and Computer Engineering;
University of California, Los
Angeles, PhD, 2001
Lorraine Ann Mountain
Associate Cooperative
Education Coordinator,
College of Engineering; Tufts
University, MS, 1998
Ronald R. Mourant
Professor, Mechanical and Industrial Engineering; Ohio State University, PhD, 1971

## Sermin Muctehitzade

Assistant Academic Specialist, World Languages Center;
Brown University, MA, 1991

## Sinan Muftu

Associate Professor, Mechanical and Industrial Engineering; University of Rochester, PhD, 1994

## Sanjeev Mukerjee

Professor, Chemistry and
Chemical Biology; Texas A\&M
University, PhD, 1994

## Jay Mulki

Assistant Professor and Renfro
Research Fellow, Marketing;
University of South Florida, PhD, 2004

Patrick R. Mullen
Assistant Professor, English; University of Pittsburgh, PhD, 2003

Sarma S. Mulukutla
Professor, Electrical and
Computer Engineering;
University of Colorado, PhD, 1968

## Kellianne Murphy

Senior Cooperative Education
Coordinator, College of Arts
and Sciences; Northeastern
University, MA, 1989
Shashi K. Murthy
Assistant Professor, Chemical
Engineering; Massachusetts
Institute of Technology, PhD, 2003

## Jamie L. Musler

Clinical Instructor, Athletic
Training; Old Dominion
University, MS, 1990
Cecelia Musselman
Postdoctoral Teaching
Associate, English; Columbia
University, PhD, 1997

## Franklin Naarendorp

Associate Professor, Psychology; City University of New York, PhD, 1987

Thomas K. Nakayama
Professor, Communication Studies; University of Iowa, PhD, 1988

## Angela Nannini

Assistant Professor, Nursing;
Brandeis University, PhD, 1998
Laurie A. Nardone
Lecturer, English; Emory
University, PhD, 1997
Uichiro Narusawa
Associate Professor, Mechanical and Industrial Engineering; University of Michigan, PhD, 1972

## Pran Nath

Matthews Distinguished University Professor, Physics; Stanford University, PhD, 1964

Stephen L. Nathanson Professor, Philosophy and Religion; Johns Hopkins University, PhD, 1969

## Hamid Nayeb-Hashemi

Professor, Mechanical and Industrial Engineering;
Massachusetts Institute of Technology, PhD, 1982

## Brent Nelson

Assistant Professor, Physics; University of California, Berkeley, PhD, 2001

## Carl W. Nelson

Associate Professor, International Business and Strategy; University of Manchester (United Kingdom), PhD, 1970

## Mark J. Niedre

Assistant Professor, Electrical and Computer Engineering;
University of Toronto
(Canada), PhD, 2004

## Michelle Niestepski

Postdoctoral Teaching Fellow, English; University of Rhode
Island, PhD, 2007

## Carey Noland

Associate Professor,
Communication Studies; Ohio
University, PhD, 2000

## Ellen Noonan

Lecturer, English; Emerson
College, MFA, 1997
Matthew P. Noonan
Lecturer, English; Massachusetts College of Art, MFA, 2000

Guevara Noubir
Associate Professor, Computer and Information Science; Swiss Federal Institute of Technology, Lausanne (Switzerland), PhD, 1996

## Vladimir Novotny

Professor, Civil and Environmental Engineering;
Vanderbilt University, PhD, 1971

Welville B. Nowak
Senior Research Scientist, Mechanical and Industrial Engineering; Massachusetts Institute of Technology, PhD, 1959

## Gilbert Nyaga

Assistant Professor, Information, Operations, and Analysis; Michigan State
University, PhD, 2006
Carla B. Oblas
Clinical Assistant Professor of Mathematical Practice, Mathematics and Education; University of California, Davis, MS, 1972

Richard L. O'Bryant Assistant Professor, Political Science; Massachusetts Institute of Technology, PhD, 2003

Antonio Ocampo-Guzman
Assistant Professor, Theatre;
York University, Toronto
(Canada), MFA, 2003
Catherine O'Connor
Clinical Instructor, Nursing;
Boston College, MS, 1998
Suzanne P. Ogden
Professor, Political Science; Brown University, PhD, 1974

## Akio Ohta

Assistant Professor, Pharmaceutical Sciences; Tohoku University (Japan), PhD, 1999

Peggy L. O'Kelly
Senior Lecturer, Accounting; University of Michigan, MBA, 1977

## Barbara F. Okun

Professor, Counseling and
Applied Educational
Psychology; Northwestern
University, PhD, 1970
Donald M. O'Malley
Associate Professor, Biology;
Harvard University, PhD, 1989

## Mary Jo Ondrechen

Professor, Chemistry and
Chemical Biology;
Northwestern University, PhD, 1978

Therese M. O’Neil-Pirozzi Associate Professor, SpeechLanguage Pathology and Audiology; Boston University, ScD, 1989

## Theresa L. Osypuk

Assistant Professor, Health
Sciences; Harvard School of
Public Health, SD, 2005

## Charlene Palladino

Associate Academic Specialist, World Languages Center; Harvard University, PhD, 1975

## Kwamina Panford

Associate Professor, AfricanAmerican Studies; Northeastern
University, PhD, 1989

## Coleen C. Pantalone

Associate Professor, Finance and Insurance; Iowa State University, PhD, 1976

## Carol Paronis

Assistant Professor,
Pharmaceutical Sciences;
Emory University, PhD, 1993

## Robert A. Parsons

Lecturer, Information,
Operations, and Analysis;
Boston College, MA, 1967

## Nikos Passas

Professor, Criminal Justice;
University of Edinburgh
(Scotland), PhD, 1988

## Rupal Patel

Associate Professor, Speech-
Language Pathology and
Audiology; University of
Toronto (Canada), PhD, 2000

## Neal Pearlmutter

Associate Professor, Psychology; Massachusetts Institute of Technology, PhD, 1993

## Lev Perelman

Professor, Physics; Institute of Physics, Minks (Belarus), PhD, 1989

## Judith Perrolle

Associate Professor, Sociology and Anthropology; Brown
University, PhD, 1980
Stuart S. Peterfreund
Professor, English; University of Washington, PhD, 1974

## Richard Peterson

Associate Professor, American Sign Language; University of California, Riverside, PhD, 1999

## Yury Petrov

Assistant Professor, Psychology; University of Pennsylvania, Philadelphia, PhD, 2000

## Susan E. Picillo <br> Lecturer, Communication Studies; Cambridge College, MEd, 1990

## Jacqueline M. Piret

Associate Professor, Biology; Massachusetts Institute of Technology, PhD, 1981

## Harlan D. Platt

Professor, Finance and Insurance; University of Michigan, PhD, 1976

## Marjorie Platt

Professor, Accounting;
University of Michigan, PhD, 1977

## Prudence Plummer-

D'Amato
Associate Professor, Physical
Therapy; La Trobe University
(Australia), PhD, 2003
Patrick F. Plunkett
Associate Professor, Health
Sciences; Northeastern
University, EdD, 1985

Elizabeth J. PodlahaMurphy
Associate Professor, Chemical
Engineering; Columbia
University, PhD, 1992

## Lusine Poghosyan

Assistant Professor, Nursing;
University of Pennsylvania, PhD, 2007

Hilary Poriss
Assistant Professor, Music; University of Chicago, PhD, 2000

## Richard D. Porter

Professor, Mathematics; Yale
University, $P h D, 1971$
Veronica L. Porter
Associate Professor, Cooperative Education, College of Arts and Sciences; Northeastern University, MEd, 1979

## John H. Portz

Professor, Political Science and Education; University of Wisconsin, Madison, PhD, 1988

## David Potter

Associate Cooperative Education Coordinator, College of Engineering; Northeastern University, MSEE, 1968

## Mary-Susan Potts-Santone

Associate Academic Specialist, Biology; University of New
Hampshire, PhD, 1993

## Karen Pounds

Assistant Professor, Nursing;
University of Rhode Island, PhD, 2008

## Tara Pouyani

Assistant Professor, Pharmaceutical Sciences; Stony Brook University, PhD, 1993

## Michael J. Power

Lecturer, Information, Operations, and Analysis;
Northeastern University, MBA, 2000

## Susan Powers-Lee

Professor, Biology; University
of California, Berkeley, PhD, 1975

Emmett G. Price III
Associate Professor, AfricanAmerican Studies and Music; University of Pittsburgh, PhD, 2000

## Viera K. Proulx

Professor, Computer and
Information Science; Columbia University, PhD, 1977

## Riccardo Pucella

Assistant Professor, Computer and Information Science; Cornell University, PhD, 2004

Sheila M. Puffer
Professor and Cherry Research Fellow, International Business
and Strategy; University of California, Berkeley, PhD, 1985

William G. Quill
Associate Professor, Counseling and Applied Educational Psychology; University of Massachusetts, Amherst, PhD, 1967

Daniel F. Quinn
Associate Academic Specialist, Psychology; Northeastern University, PhD, 1989

## Samuel Rabino

Professor, Marketing; New York University, PhD, 1978

## Gordana Rabrenovic

Associate Professor, Sociology and Anthropology and Education; State University of
New York, Albany, PhD, 1990

## Joseph A. Raelin

Professor and Asa S. Knowles Chair of Practice-Oriented Education, Management and Organizational Development; State University of New York, Buffalo, PhD, 1976

## Rajmohan Rajaraman

Associate Professor, Computer and Information Science; University of Texas, Austin, PhD, 1997

Ravi Ramamurti
Professor and Bornstein Research Fellow, International Business and Strategy; Harvard University, DBA, 1982

## Valeria Ramdin

Clinical Instructor, Nursing;
Northeastern University, MS, 1995

Mark B. Ramras
Associate Professor, Mathematics; Brandeis
University, PhD, 1967

## Janet H. Randall

Associate Professor, English; University of Massachusetts, Amherst, PhD, 1982

## T. Neal Rantoul

Professor, Art + Design; Rhode Island School of Design, MFA, 1973

## Carey M. Rappaport

Professor, Electrical and Computer Engineering;
Massachusetts Institute of Technology, ScD, 1987

Richard A. Rasala
Professor, Computer and Information Science; Harvard University, PhD, 1969

## Purnima Ratilal

Assistant Professor, Electrical and Computer Engineering; Massachusetts Institute of Technology, PhD, 2002

## Andrea Raynor

Lecturer, Art + Design; School of Visual Arts, MFA, 1997

## Adam J. Reeves

Professor, Psychology; City
University of New York, PhD, 1977

Debra Reid
Assistant Clinical Professor, Pharmacy Practice;
Northeastern University, PharmD, 2005

Kevin J. Reilly
Assistant Professor, SpeechLanguage Pathology and Audiology; University of Washington, PhD, 2004

## Stephen Reucroft

Matthews Distinguished
University Professor, Physics;
University of Liverpool (United
Kingdom), PhD, 1969

## John R. Reynolds

Professor, Pharmacy Practice;
Duquesne University, PharmD, 1983

## Matthew Rich

Lecturer, Art + Design; School of the Art Institute of Chicago, MFA, 2004

## Nathaniel Rickles

Assistant Professor, Pharmacy
Practice; Philadelphia College
of Pharmacy, Pharm D, 1996;
University of Wisconsin,
Madison, PhD, 2003

## Maureen Riddle

Lecturer, English; Tulane
University, PhD, 2000
Benjamin A. Ridgway
Assistant Professor, Art + Design; California Institute of the Arts, MFA, 1998

Mirek Riedewald
Associate Professor, Computer and Information Science; University of California, Santa Barbara, PhD, 2002

## Susan J. Roberts

Professor, Nursing; Boston
University, DNSc, 1975
Christopher J. Robertson
Associate Professor and McCarthy Family Research Fellow, International Business and Strategy; Florida State
University, PhD, 1997
Craig M. Robertson
Assistant Professor, Communication Studies; University of Illinois, UrbanaChampaign, PhD, 2004

Cordula A. Robinson
Assistant Academic Specialist, Earth and Environmental Sciences; University College London (United Kingdom), PhD, 1991

Harlow L. Robinson
Matthews Distinguished University Professor, History and Languages, Literatures, and Cultures; University of California, Berkeley, PhD, 1980

Holbrook C. Robinson Associate Professor, Languages, Literatures, and Cultures; Harvard University, PhD, 1974

## Jennifer B. Robinson

Assistant Professor, Criminal Justice; Temple University, PhD, 2002

## Raymond H. Robinson

Distinguished Service Professor, History; Harvard University, PhD, 1958

Tracy L. Robinson Professor, Counseling and Applied Educational Psychology; Harvard University, PhD, 1988

Walter V. Robinson Distinguished Professor, Journalism; Northeastern University, BA, 1974

Vincent F. Rocchio
Assistant Professor, Communication Studies; New York University, PhD, 1991

David A. Rochefort
College of Arts and Sciences
Distinguished Professor, Political Science; Brown
University, PhD, 1983

## Andrew J. Rohm

Associate Professor and DiCenso Family Research Fellow, Marketing; University of Massachusetts, Amherst, PhD, 2001

## Bruce Ronkin

Professor, Music; University of Maryland, DMA, 1987

## Peter S. Rosen

Associate Professor, Earth and Environmental Sciences; College of William and Mary, PhD, 1976

## Rebeca B. Rosengaus

Associate Professor, Biology;
Boston University, PhD, 1992

## Norma P. Rosin

Associate Academic Specialist, General Studies; Northeastern University, MEd, 1967

James R. Ross
Associate Professor, Journalism; American
University, MA, 1982
Martin E. Ross
Associate Professor, Earth and Environmental Sciences;
University of Idaho, PhD, 1978

## Guy Rotella

Professor, English; Boston College, PhD, 1976

## Alexandra Roth

Lecturer, International
Business and Strategy;
University of Frankfurt
(Germany), PhD, 2002
Jeffrey W. Ruberti
Associate Professor, Mechanical and Industrial
Engineering; Tulane
University, PhD, 1998

## Timothy J. Rupert

Professor and Carey Research Fellow, Accounting;
Pennsylvania State University, PhD, 1993

## Ivan Rupnik

Assistant Professor, Architecture; Harvard
University, MArch, 2003
Bruce D. Russell
Associate Academic Specialist, Information, Operations, and Analysis; National University of Ireland (Ireland), PhD, 1975

## Molly Sacco

Assistant Cooperative Education Coordinator, College of Criminal Justice; Northeastern University, BS, 1999

Albert Sacco Jr.
George A. Snell Professor of Engineering and College of Engineering Distinguished Professor, Chemical Engineering; Massachusetts Institute of Technology, PhD, 1977

## Hanai A. Sadaka

Lecturer, Mathematics; Northeastern University, PhD, 1997

Stephen A. Sadow
Professor, Languages,
Literatures, and Cultures;
Harvard University, PhD, 1977

## J. Timothy Sage

Associate Professor, Physics;
University of Illinois, Urbana-
Champaign, PhD, 1986

## Masoud Salehi

Associate Professor, Electrical and Computer Engineering;
Stanford University, PhD, 1979
William Sanchez
Associate Professor,
Counseling and Applied
Educational Psychology;
Boston University, PhD, 1978
Ronald L. Sandler
Associate Professor, Philosophy and Religion; University of Wisconsin, Madison, PhD, 2001

## Ravi Sarathy

Professor, International Business and Strategy; University of Michigan, PhD, 1976

Jennifer I. Sartori
Assistant Academic Specialist, Jewish Studies; Haverford College of Pennsylvania, PhD, 2004

## Mehrdad Sasani-Kolori

Associate Professor, Civil and
Environmental Engineering; University of California, Berkeley, PhD, 2001

Behrooz (Barry) Satvat
Associate Cooperative
Education Coordinator, College of Engineering; Massachusetts Institute of Technology, ScD, 1980

## Carmen Sceppa

Associate Professor, Health Sciences; Tufts University, PhD, 1994

Robert A. Schatz
Associate Professor, Pharmaceutical Sciences; University of Rhode Island, PhD, 1971

Ralf W. Schlosser
Professor, Speech-Language
Pathology and Audiology;
Purdue University, PhD, 1994
David E. Schmitt
Edward W. Brooke Professor of Political Science, Political Science; University of Texas, Austin, PhD, 1971

## Rita Schneider

Lecturer, Languages,
Literatures, and Cultures; University of Paris (France), MA, 1973

## Paul Schreyer

Assistant Academic Specialist, World Languages Center; Western Maryland College, MEd, 1985

Alan Schroeder
Associate Professor,
Journalism; Harvard
University, MPA, 1989
Egon Schulte
Professor, Mathematics;
University of Dortmund
(Germany), PhD, 1985
Gerald E. Schumacher
Professor, Pharmacy Practice;
University of Southern
California, PharmD, 1961;
Wayne State University, PhD, 1972

Martin Schwarz
Associate Professor, Mathematics; Courant Institute, PhD, 1981

## James F. Scorzelli

Professor, Counseling and Applied Educational
Psychology; University of Wisconsin, Madison, PhD, 1973

## Richard J. Scranton

Associate Professor, Civil and Environmental Engineering;
Massachusetts Institute of
Technology, SM, 1968
Philip E. Serafim
Professor, Electrical and
Computer Engineering;
Massachusetts Institute of
Technology, ScD, 1963

## Susan M. Setta

Associate Professor, Philosophy and Religion; Pennsylvania State University, PhD, 1979

## Bahram Shafai

Professor, Electrical and Computer Engineering; George Washington University, ScD, 1984

## Jayant M. Shah

Professor, Mathematics; Massachusetts Institute of Technology, PhD, 1974

Harvey D. Shapiro Associate Professor, Education; Hebrew Union College, PhD, 1986

## Nancy H. Sharby

Associate Clinical Professor, Physical Therapy; Northeastern University, DPT, 2007

## Dennis R. Shaughnessy

Associate Academic Specialist, Entrepreneurship and Innovation; University of Maryland, JD, 1984

Thomas C. Sheahan
Professor, Civil and Environmental Engineering;
Massachusetts Institute of
Technology, ScD, 1991

## Reza H. Sheikhi

Assistant Professor, Mechanical and Industrial Engineering; University of Pittsburgh, PhD, 2005

Eliot H. Sherman
Lecturer, Finance and Insurance; Bentley College, MST, 1985

## H. David Sherman

Professor, Accounting;
Harvard University, DBA, 1981

## Rebekah Sherman

Assistant Clinical Professor,
Pharmacy Practice; Northeastern University, PharmD, 2007

Thomas O. Sherman
Associate Professor, Mathematics; Massachusetts Institute of Technology, PhD, 1964

Wallace W. Sherwood
Associate Professor, Criminal Justice; Harvard University, LLM, 1971

## Olin Shivers

Associate Professor, Computer and Information Science; Carnegie Mellon University, PhD, 1991

## Mikhail Shubin

Matthews Distinguished University Professor, Mathematics; Moscow State University (Russia), PhD, 1969

## Susan F. Sieloff

Lecturer, Marketing; University of Michigan, MBA, 1981

## Robert Sikes

Associate Professor, Physical
Therapy; University of Texas, Houston, PhD, 1982

Michael B. Silevitch
Robert Black Professor of Engineering and College of Engineering Distinguished
Professor, Electrical and Computer Engineering; Northeastern University, $P h D$, 1971

## Kumarini Silva

Assistant Professor, Communication Studies; University of Oregon, PhD, 2004

Melvin W. Simms
Associate Professor, Cooperative Education, College of Computer and Information Science; Boston University, EdD, 1981

Peter J. Simon
Lecturer, Economics; Northern Illinois University, PhD, 1990

Simon I. Singer
Professor, Criminal Justice; University of Pennsylvania, PhD, 1980

## Sarah S. Sinwell

Postdoctoral Teaching Associate, Communication Studies; Indiana University, PhD, 2007

## Rifat Sipahi

Assistant Professor,
Mechanical and Industrial
Engineering; University of Connecticut, PhD, 2005

Michail V. Sitkovsky
Eleanor W. Black Chair in
Immunophysiology and
Pharmaceutical Biotechnology
and Professor, Pharmaceutical
Sciences, and Professor,
Biology; Moscow State
University (Russia), PhD, 1973
Andrew Skirvin
Associate Clinical Professor,
Pharmacy Practice; University
of Texas, PharmD, 1995

## Ronald Bruce Smith

Assistant Professor, Music;
University of California, Berkeley, PhD, 1992

Wendy A. Smith
College of Arts and Sciences
Distinguished Associate
Professor, Biology; Duke
University, PhD, 1981
Eugene Smotkin
Professor, Chemistry and
Chemical Biology; University
of Texas, Austin, PhD, 1989
Nancy P. Snyder
Assistant Academic Specialist,
Psychology; Harvard
University, EdD, 1991

## Claudia Sokol

Assistant Academic Specialist, World Languages Center;
University of Buenos Aires
(Argentina), MD, 1976
Jeffrey B. Sokoloff
Professor, Physics;
Massachusetts Institute of
Technology, PhD, 1967
Marius M. Solomon
Professor, Information, Operations, and Analysis;
University of Pennsylvania, PhD, 1984

Susan J. Soroka
Lecturer, English; Drew
University, PhD, 2008

Allen L. Soyster
Professor, Mechanical and Industrial Engineering;
Carnegie-Mellon University, PhD, 1973

## Bert A. Spector

Associate Professor, International Business and Strategy; University of
Missouri, PhD, 1977

## John Spiegel

Associate Professor, Languages, Literatures, and Cultures; Columbia University, PhD, 1986

## Karen M. Spikes

Lecturer, Psychology; Cornell University, PhD, 1991

Francis C. Spital
Associate Professor,
Management and
Organizational Development;
Massachusetts Institute of Technology, PhD, 1978

## Srinivas Sridhar

College of Arts and Sciences Distinguished Professor, Physics; California Institute of Technology, PhD, 1983

Aleksandar M. Stankovic
College of Engineering
Distinguished Professor,
Electrical and Computer Engineering; Massachusetts Institute of Technology, PhD, 1993

Thomas Starr
Professor, Art + Design; Yale
University, MFA, 1994

## L. Christina Steiger

Assistant Professor,
Economics; University of
Oregon, PhD, 2009

## James R. Stellar

Professor, Psychology and Behavioral Neuroscience; University of Pennsylvania, PhD, 1976

Armen Stepanyants
Assistant Professor, Physics; University of Rhode Island, PhD, 1999

## Dagmar Sternad

Professor, Biology and Electrical and Computer
Engineering; University of
Connecticut, PhD, 1995

## Ann Steuernagel

Assistant Professor, Art + Design; Massachusetts College of Art, MFA, 1989

## Milica Stojanovic

Associate Professor, Electrical and Computer Engineering; Northeastern University, PhD, 1993

## Richard Strasser

Assistant Professor, Music; Manhattan School of Music, DMA, 1997

Phyllis R. Strauss Matthews Distinguished University Professor, Biology; Rockefeller University, PhD, 1971

## Alexandru I. Suciu

Professor, Mathematics; Columbia University, PhD, 1984

Claire E. Sufrin Schusterman Teaching Fellow, Jewish Studies; Stanford University, PhD, 2008

Annemarie C. Sullivan
Clinical Instructor, Health
Sciences; Northeastern
University, MS, 1996
Denis J. Sullivan
Professor, Political Science and International Affairs; University of Michigan, PhD, 1987

## Patricia Sullivan

Assistant Professor, English; University of Pittsburgh, PhD, 2002

## Fareena Sultan

Professor and Morrison Research Fellow, Marketing; Columbia University, PhD, 1986

Andrew M. Sum Professor, Economics; Massachusetts Institute of Technology, MA, 1971

## Nian-Xiang Sun

Associate Professor, Electrical and Computer Engineering;
Stanford University, PhD, 2001

## Ravi Sundaram

Associate Professor, Computer and Information Science;
Massachusetts Institute of Technology, PhD, 1996

John D. Swain
Associate Professor, Physics;
University of Toronto
(Canada), PhD, 1990

## Scott Swain

Assistant Professor, Marketing;
University of South Carolina, PhD, 2002

Richard S. Swasey Jr.
Senior Lecturer, Finance and Insurance; University of Virginia, MBA, 1983

Jacqueline F. Sweeney
Associate Cooperative Education Coordinator, College of Arts and Sciences; Northeastern University, MS, 1991

Sheelah M. Sweeny
Assistant Professor, Education; University of Connecticut, PhD, 2008

Jordan Swift
Assistant Cooperative
Education Coordinator,
Chemistry and Chemical
Biology; Northeastern
University, MS, 2004
Mario Sznaier
Dennis Picard Trustee
Professor, Electrical and
Computer Engineering;
University of Washington, $P h D$, 1989

## Gilead Tadmor

Professor, Electrical and Computer Engineering;
Weizmann Institute of Science
(Israel), PhD, 1984
Kathy Tanner
Assistant Cooperative
Education Coordinator,
College of Business
Administration; Northeastern
University, MEd, 1981

Aysen Tanyeri-Abur
Distinguished Visiting Professor, International
Affairs; Texas A\&M University, PhD, 1990

## Jerome Tapper

Associate Academic Specialist, Electrical Engineering Technology; Northeastern University, MS, 1998

Mary Suzanne Tarmina
Associate Clinical Professor, Nursing; University of Utah, PhD, 1992

Mohammad E. Taslim
Professor, Mechanical and
Industrial Engineering;
University of Arizona, PhD, 1981

Nancy Tavares
Assistant Cooperative
Education Coordinator, College of Criminal Justice;
Boston University, MSW, 1985
Tomasz Taylor
Professor, Physics; University of Warsaw (Poland), PhD, 1981

## Christian Teter

Assistant Professor, Pharmacy
Practice; University of
Michigan, PharmD, 1999

## Adam Thomas

Clinical Instructor, Athletic
Training; Western Michigan
University, MA, 2001

## Ronald S. Thomas

Senior Lecturer, International Business and Strategy; Harvard
University, PhD, 1990
George F. Thompson
Assistant Professor, Counseling
and Applied Educational
Psychology; University of
Georgia, Athens, PhD, 2004

## Charissa J. Threat

Assistant Professor, History;
University of Iowa, PhD, 2008
George H. Thrush
Professor, Architecture;
Harvard University, MArch, 1988

## Judith Tick

Matthews Distinguished
University Professor, Music;
City University of New York, PhD, 1979

## Robert R. Tillman

Associate Professor,
Cooperative Education, College
of Engineering; Northeastern
University, EdD, 1988

## William T. Tita

Lecturer, Entrepreneurship and
Innovation; University of
Pittsburgh, PhD, 1977

## Gordana G. Todorov

Associate Professor,
Mathematics; Brandeis
University, PhD, 1979

## Valerio Toledano Laredo

Associate Professor, Mathematics; University of Cambridge (United Kingdom), PhD, 1997

## Michael C. Tolley

Associate Professor, Political
Science; Johns Hopkins
University, PhD, 1990

## Peter Topalov

Assistant Professor,
Mathematics; Moscow State
University (Russia), PhD, 1997

## Juraj Topolancik

Assistant Professor, Electrical and Computer Engineering;
University of Michigan, Ann
Arbor, PhD, 2005
Vladimir P. Torchilin
Distinguished Professor, Pharmaceutical Sciences;
Moscow State University
(Russia), PhD, 1972, DSc, 1981

## Ali Touran

Associate Professor, Civil and
Environmental Engineering;
Stanford University, PhD, 1980

## Justin A. Townsend

Assistant Professor, Theatre; California Institute of the Arts, MFA, 2003

Emery A. Trahan
Professor, Finance and Insurance; State University of New York, Albany, PhD, 1988

## Geoffrey C. Trussell

Associate Professor, Biology;
College of William and Mary, PhD, 1998

## Berna Turam

Associate Professor, International Affairs and Sociology and Anthropology; McGill University (Canada), PhD, 2001

## Bonnie TuSmith

Associate Professor, English; Washington State University, PhD, 1989

Nancy Upton
Assistant Professor, Marketing; Harvard University, PhD, 2000

## Steven P. Vallas

Professor, Sociology and
Anthropology; Rutgers
University, PhD, 1983

## Jenny A. Van Amburgh

Associate Clinical Professor, Pharmacy Practice; Albany College of Pharmacy, PharmD, 1999

## Sean P. Varano

Assistant Professor, Criminal
Justice; Michigan State
University, PhD, 2002
Michael T. Vaughn
Professor, Physics; Purdue
University, PhD, 1960

## Ashkan Vaziri

Assistant Professor,
Mechanical and Industrial
Engineering; Northeastern
University, PhD, 2004

## Karin A. Velez

Assistant Professor, History; Princeton University, PhD, 2007

## Anand Venkateswaran

Assistant Professor and Riesman Research Professor, Finance and Insurance; Georgia State University, PhD, 2004

## Susan H. Ventura

Assistant Professor, Physical
Therapy; Northeastern
University, PhD, 2005

## Thomas J. Vicino

Assistant Professor, Political
Science; University of
Maryland, PhD, 2006

## Emanuele Viola

Assistant Professor, Computer and Information Science; Harvard University, PhD, 2006

## Leslie Ann A. Vitin

Assistant Clinical Professor, Pharmacy Practice; University of Southern California, PharmD, 2008

## Carmine Vittoria

College of Engineering
Distinguished Professor,
Electrical and Computer Engineering; Yale University, PhD, 1970

## Steven Vollmer

Assistant Professor, Biology;
Harvard University, PhD, 2004

## Robert J. Volpe

Assistant Professor, Counseling and Applied Educational Psychology; Lehigh University, PhD, 2003

## Marsette A. Vona

Assistant Professor, Computer and Information Science;
Massachusetts Institute of
Technology, PhD, 2009

## Kari von Knoblauch

Assistant Cooperative
Education Coordinator,
College of Arts and Sciences;
Lesley College, MA, 2005
Paul Vouros
Professor, Chemistry and
Chemical Biology;
Massachusetts Institute of
Technology, PhD, 1965

## Sara Wadia-Fascetti

Associate Professor, Civil and
Environmental Engineering;
Stanford University, PhD, 1994

## Chris Walker

Associate Academic Specialist, International Business and Strategy; Golden Gate University, DBA, 2004

## Bruce A. Wallin

Associate Professor, Political Science; University of California, Berkeley, PhD, 1983

Richard G. Wamai
Lecturer, African-American
Studies; University of Helsinki (Finland), PhD, 2004

## Kai-tak Wan

Associate Professor,
Mechanical and Industrial
Engineering; University of
Maryland, College Park, PhD, 1992

Mitchell Wand
Professor, Computer and Information Science;
Massachusetts Institute of
Technology, PhD, 1973

## Ming Wang

Professor, Civil and Environmental Engineering; University of New Mexico, PhD, 1980

## Patrick S. P. Wang

Professor, Computer and Information Science; Oregon
State University, PhD, 1978
Zhongming Wang
Assistant Professor,
Economics; Georgetown
University, PhD, 2002
Robert J. Ward
Lecturer, Music; University of California, San Diego, MA, 1983

Carol M. Warner
Matthews Distinguished
University Professor, Biology;
University of California, Los
Angeles, PhD, 1971
Philip M. Warner
Professor, Chemistry and Chemical Biology; University of California, Los Angeles, PhD, 1970

## Gregory H. Wassall

Associate Professor,
Economics; Rutgers University,
PhD, 1978

## Barbara L. Waszczak

Professor, Pharmaceutical
Sciences; University of
Michigan, PhD, 1978

Mary E. Watson
Associate Professor, Health
Sciences; Boston University, EdD, 1983

## Hyunsoo Wee

Postdoctoral Teaching
Associate, Music; Arizona State
University, DMA, 2004
Irvine W. Wei
Associate Professor, Civil and
Environmental Engineering;
Harvard University, PhD, 1972
Joel R. Weinstein
Assistant Academic Specialist, Computer Engineering
Technology; Northeastern
University, MS, 2003

## Liza Weinstein

Assistant Professor, Sociology and Anthropology; University
of Chicago, PhD, 2009

## Jonathan Weitsman

Robert G. Stone Professor, Mathematics; Harvard University, PhD, 1988

## Brandon C. Welsh

Associate Professor, Criminal
Justice; University of
Cambridge, PhD, 1999
Edward G. Wertheim
Associate Professor,
Management and
Organizational Development; Yeshiva University (Israel), PhD, 1973

## Alan West-Duran

Associate Professor, Languages, Literatures, and Cultures; New York University, PhD, 1993

Jerzy M. Weyman
Professor, Mathematics;
Brandeis University, PhD, 1980

## Richard Whalen

Associate Academic Specialist,
Engineering; Northeastern
University, PhD, 1999

## Robyn White

Assistant Clinical Professor,
Pharmacy Practice;
Northeastern University,
PharmD, 2006

Ronald M. Whitfield
Lecturer, Finance and Insurance; University of Pennsylvania, PhD, 1974

Allan Widom
Professor, Physics; Cornell
University, PhD, 1967
Peter H. Wiederspahn
Associate Professor, Architecture; Harvard
University, MArch, 1989

## Ronald J. Willey

Professor, Chemical Engineering; University of Massachusetts, Amherst, PhD, 1984

Mark C. Williams
Associate Professor, Physics; University of Minnesota, PhD, 1998

## Stephen Williams

Assistant Cooperative Education Coordinator, College of Criminal Justice; Suffolk University Law School, JD, 1984

## Kimberly Ashton Wise

 Clinical Instructor, Athletic Training; Barry University, MS, 2000
## Frederick Wiseman

Professor, Information, Operations, and Analysis; Cornell University, PhD, 1970

## John Wolfe

Associate Academic Specialist,
Education; Columbia
University, EdD, 1998

## Darien Wood

Professor, Physics; University of California, Berkeley, PhD, 1987

## Judith Woolfson

Assistant Cooperative Education Coordinator, College of Arts and Sciences; Mount Holyoke College, MA, 1974

## Adam Woolley

Assistant Clinical Professor, Pharmacy Practice; Massachusetts College of Pharmacy, PharmD, 2007

## Lisa C. Worsh

Associate Cooperative Education Coordinator, College of Arts and Sciences; Bridgewater State College, MEd, 1993

William E. Wray
Associate Cooperative Education Coordinator, College of Arts and Sciences; Southwestern University, JD, 1977

## Arnold Wright

Golemme Research Professor of Accounting, Accounting;
University of Southern
California, PhD, 1979

## Frederick Wright

Lecturer, Marketing; Suffolk
University, MBA, 1971
Shu-Shih Wu
Lecturer, Mathematics;
Northeastern University, $P h D$, 1986

Shiawee X. Yang
Associate Professor, Finance and Insurance; Pennsylvania
State University, PhD, 1995
Mishac K. Yegian
College of Engineering
Distinguished Professor, Civil
and Environmental
Engineering; Massachusetts
Institute of Technology, PhD, 1976

## Yaman Yener

College of Engineering
Distinguished Professor, Mechanical and Industrial
Engineering; North Carolina
State University, PhD, 1973
Mustafa R. Yilmaz
Professor, Information, Operations, and Analysis; Johns Hopkins University, PhD, 1974

Mark L. Yorra
Senior Cooperative Education Coordinator, Bouvé College of Health Sciences; Massachusetts College of Pharmacy, MS, 1983

Robert F. Young
Associate Professor, Marketing; Harvard University, DBA, 1980

Sara C. Young-Hong
Clinical Instructor, Speech-
Language Pathology and
Audiology; University of
Pittsburg, MA, 2002
Michael H. Zack
Professor, Information, Operations, and Analysis; Harvard University, DBA, 1991

Christos Zahopoulos
Research Professor,
Engineering and Education; Northeastern University, PhD, 1985

Alan J. Zaremba
Associate Professor,
Communication Studies; State University of New York, Buffalo, PhD, 1977

Paul M. Zavracky
Jean C. Tempel Professor of
Entrepreneurship,
Technological
Entrepreneurship; Tufts
University, PhD, 1984

## Ibrahim Zeid

Professor, Mechanical and
Industrial Engineering;
University of Akron, PhD, 1981
Andrei V. Zelevinsky
Professor, Mathematics;
Moscow State University
(Russia), PhD, 1978
David P. Zgarrick
Professor, Pharmacy Practice; Ohio State University, PhD, 1993

Yue May Zhang
Assistant Professor, Accounting; University of Pittsburgh, PhD, 2006

## Zhaohui Zhou

Associate Professor, Chemistry and Chemical Biology and the
Barnett Institute; Scripps
Research Institute, PhD, 1997

## Sally Tebbourne Ziane

Associate Academic Specialist,
World Languages Center;
University of Paris XIII
(France), PhD, 1999
Katherine S. Ziemer
Associate Professor, Chemical Engineering; West Virginia University, PhD, 2001

## Gregory M. Zimmerman

Assistant Professor, Criminal
Justice; State University of New
York, Albany, PhD, 2009

## Kathrin Zippel

Associate Professor, Sociology and Anthropology; University of Wisconsin, Madison, PhD, 2000

Gregory B. Zuch
Lecturer, English; Northeastern University, MA, 1984

The following online resources supplement this catalog:

## Course descriptions:

www.northeastern.edu/registrar/banner-catalog.html
Class schedules:
www.northeastern.edu/registrar/banner-schedule.html
Academic calendars:
www.northeastern.edu/registrar/calendars.html

## Campus maps:

www.northeastern.edu/campusmap/

The Northeastern University Undergraduate Catalog (Full-Time Day Programs) contains the University’s primary statements about these academic programs and degree requirements, as authorized by the president or the Board of Trustees. For information about other academic policies and procedures; student responsibilities; student academic and cocurricular life; faculty rights and responsibilities; or general personnel policies, benefits, and services, please refer to the Academic Operations Manual, Undergraduate Student Handbook, Cooperative Education Handbook, Faculty Handbook, Benefits and Services Handbook, and related procedural guides, as appropriate.

Accreditation. Northeastern University is accredited by the New England Association of Schools and Colleges, Inc.
Delivery of Services. Northeastern University assumes no liability for delay or failure to provide educational or other services or facilities due to causes beyond its reasonable control. Causes include, without limitation, power failure, fire, strikes by University employees or others, damage by natural elements, and acts of public authorities. The University will, however, exert reasonable efforts, when it judges them to be appropriate, to provide comparable services, facilities, or performance; but its inability or failure to do so shall not subject the University to liability.

The Northeastern University Undergraduate Catalog contains current information about the University calendar, admissions, degree requirements, fees, and regulations; however, such information is not intended and should not be regarded to be contractual.

Northeastern University reserves the sole right to promulgate and change rules and regulations and to make changes of any nature in its program; calendar; admissions policies, procedures, and standards; degree requirements; fees; and academic schedule whenever necessary or desirable, including, without limitation, changes in course content and class schedule, the cancellation of scheduled classes and other academic activities, and the substitution of alternatives for scheduled classes and other academic activities. In any such case, the University will give whatever notice is reasonably practical.

Northeastern University will endeavor to make available to its students a fine education and a stimulating and congenial environment. However, the quality and rate of progress of an individual's academic career and professional advancement upon completion of a degree or program are largely dependent on his or her own abilities, commitment, and effort. In many professions and occupations, there are also requirements imposed by federal and state statutes and regulatory agencies for certification or entry into a particular field. These requirements may change while a student is enrolled in a program and may vary from state to state or country to country. Although the University stands ready to help its students find out about requirements and changes in them, it is the student's responsibility to initiate the inquiry.

Tuition Default Policy. In cases where the student defaults on his/her tuition, the student shall be liable for the outstanding tuition and all reasonable associated collection costs incurred by the University, including attorneys' fees.

Emergency Closing of the University. Northeastern University has made arrangements to notify students, faculty, and staff by radio and television when it becomes necessary to cancel classes because of extremely inclement weather. AM stations WBZ (1030), WILD (1090), and WRKO (680), and FM stations WBUR (90.9) and WFNX (101.7) are the radio stations authorized to announce the University's decision to close. Television stations WBZ-TV4, WCVBTV5, and WHDH-TV7 will also report cancellations. Since instructional television courses originate from live or broadcast facilities at the University, neither the classes nor the courier service operates when the University is closed. Please listen to the radio or television to determine whether the University will be closed.

If a storm occurs at night, the announcement of University closing is given to the radio stations at approximately 6 AM. Classes are generally canceled for that entire day and evening at all campus locations unless stated otherwise. When a storm begins late in the day, cancellations of evening classes may be announced. This announcement is usually made between 2 and 3 PM.

Equal Opportunity Policy. Northeastern University does not discriminate on the basis of race, color, religion, sex, sexual orientation, age, national origin, disability, or veteran status in admission to, access to, treatment in, or employment in its programs and activities. In addition, Northeastern University will not condone any form of sexual harassment. Handbooks containing the University's nondiscrimination policies and its grievance procedures are available in the Office of Institutional Diversity and Equity, 125 Richards Hall. Inquiries regarding the University's nondiscrimination policies may be directed to:
Donnie Perkins
Office of Institutional Diversity and Equity
125 Richards Hall
Northeastern University
Boston, Massachusetts 02115
617.373.2133

Inquiries concerning the application of nondiscrimination policies may also be referred to the Regional Director, Office for Civil Rights, U.S. Department of Education, J.W. McCormack Building, Post Office Court House, Room 222, Boston, Massachusetts 02109-4557.

Disability Resource Center. The Disability Resource Center provides a variety of disability-related services and accommodations to Northeastern University's students and employees with disabilities.
Northeastern University's compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 are coordinated by the dean and director of the Disability Resource Center. Persons requiring information regarding the Disability Resource Center should contact the center at 617.373 .2675 or 617.373 .2730 (TTY).

Family Educational Rights and Privacy Act. In accordance with the Family Educational Rights and Privacy Act of 1974, Northeastern University permits its students to inspect their records wherever appropriate and to challenge specific parts of them when they feel it is necessary to do so. Specific details of the law as it applies to Northeastern are printed in the Undergraduate and Graduate Student Handbook and are distributed annually at registration for the University's colleges and graduate schools.

Persistence Rates under the Student Right-to-Know Act. In the fall of 2008, the persistence rate for students who entered in the fall 2007 cohort was 92.7 percent.

## Mission Statement:

To educate students for a life of fulfillment and accomplishment.
To create and translate knowledge to meet global and societal needs.

NU 06.08.06


[^0]:    AMERICAN SIGN LANGUAGE AND HUMAN SERVICES DUAL-MAJOR GPA REQUIREMENT
    Minimum 2.750 GPA required in all ASL courses
    Minimum 2.500 overall GPA required

