Northeastern University

## Undergraduate Catalog 2016-2017

Full-Time Day Programs

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## Admission

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## 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 evaluate applicants holistically to identify candidates who will bring a diversity of experiences and interest to our community. Each year, approximately 2,800 new freshmen and 400 new transfer students enroll in September. In addition, approximately 800 new students will enroll in January through The N.U.in Program. The N.U.in Program is an innovative first-year global experience during which admitted students begin their college studies at one of our partner institutions overseas while earning transfer credits in the fall semester ${ }^{1}$ and start their studies on campus in Boston in the spring semester. See additional information about The N.U.in Program.

In building a diverse and talented incoming class, the Admission Committee seeks to enroll students who have been successful academically and who have been actively involved in activities in their school and home communities.

Typically, students admitted to Northeastern have been extremely successful with 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 factors such as the candidate's academic transcript; letters of recommendation; resumé; essay; academic preparation for major of choice; and, in certain cases, high school grade-point average and standardized test scores as well as strength of character. 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 the Coalition

 Application. Students may apply online via the Common Application (http://www.commonapp.org) or the Coalition Application (http:// www.coalitionforcollegeaccess.org). Northeastern does not have a preference for which application is submitted. Both the Common Application and the Coalition Application will be reviewed equally.${ }^{1}$ 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.

## Deadlines and Decisions

Interested applicants may apply for entrance into either the fall or spring semester. For application deadlines, visit the admissions website (https://www.northeastern.edu/admissions).

- Northeastern offers a nonbinding Early Action application process and a binding Early Decision process for freshman applicants.
- Northeastern also offers a Regular Decision application process for freshman applicants.
- Transfer decisions are not released on a rolling basis, and all decisions are released by a given date.


## Required Materials

The committee will begin to evaluate an applicant's candidacy for admission only when all application credentials have been received. Ensure that all appropriate identification information is on every piece of your application package (name, date of birth, and NU ID).

## FRESHMAN APPLICANTS

More than 51,000 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 who 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; and who have demonstrated qualities of leadership, creativity, diversity, engagement, global perspective, adaptability, and resiliency. Our students exhibit strong character, high ethical standards, and a commitment to involvement and to being a positive influence in their community and in the world. 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, prospective freshmen must

 submit the following:- Completed Common Application (http://www.commonapp.org) or Coalition Application (http://www.coalitionforcollegeaccess.org).
- Application fee of $\$ 75$.
- Secondary school counselor and teacher recommendations.
- Secondary school transcripts with final junior year grades. Firstsemester or first-trimester grades should be submitted when they are available; first-quarter grades are not required. If you have been out of high school for more than one year, you must send the most up-todate version of your transcript. Transcripts should be evaluated by a recognized credentialing agency.
- Early Decision Agreement for students applying under the binding Early Decision process.
- Official SAT or ACT results. Northeastern's CEEB College Code is 3667 / ACT College Code is 1880 . Test scores must be sent to Northeastern directly from the testing agency. November test scores will be considered for early action and early decision candidates if received by December 1; January test scores for regular decision candidates if received by February 15.* For detailed testing requirements see the admissions website (https:// www.northeastern.edu/admissions).
- Portfolios are required for music technology, studio art, and are encouraged for majors within the College of Arts, Media and Design. Additionally, all portfolio submissions will be considered for the Creative Leaders Program. Northeastern uses SlideRoom (https:// www.northeastern.edu/admissions/application-information) for online portfolio submissions. See additional information (p. 12).
- General Equivalency Diploma (GED) recipients should provide their official GED score reports and their most complete high school transcript.
- Home-schooled applicants should submit an academic portfolio/ transcript consistent with their state guidelines. This should include grades for each course. They must also provide proof that they will have met by the end of May of the year of graduation all requirements for an official high school diploma and submit a 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. Homeschooled students must submit either the SAT exam or the ACT. In addition to the ACT or SAT, two SAT subject tests, including mathematics and an additional subject test of the student's choice, are required. Students who are applying for majors in the Bouvé College of Health Sciences, the College of Computer and Information Science, or the College of Science should take a science subject test as their second exam. Applicants to the College of Engineering should take the physics subject test unless they are applying for chemical engineering, in which case the chemistry subject test is required.
- For early high school graduates, Northeastern will review applications from students who will complete high school in three years or less. 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 GED. In addition to the required materials for freshman applicants, early high school graduate applicants must provide written endorsement from the school principal or guidance counselor, as well as parents. The endorsements should speak directly to the applicants' academic readiness and emotional maturity for college. An interview may also be required.
- Nontraditional grading policies: Students who attend schools where narrative evaluations are used instead of traditional letter grades are required to submit the narratives to complete their applications.
- English proficiency: Northeastern seeks to enroll the most talented and academically qualified students. Even if your English proficiency falls below our recommendations, we have the expertise and necessary academic infrastructure to support students who need to improve their English skills. Our support system includes many on-campus resources and a dedicated prematriculation program called American Classroom. For more information about English proficiency requirements, please visit the admissions website (https://www.northeastern.edu/admissions).
- For applicants applying from secondary schools located outside the United States, SAT or ACT scores are not required and will not be considered for admission if submitted. Applicants are encouraged to submit results from nationally accredited exams that signify completion of secondary education and are required for entry into universities in their home country. Applicants who attend a high school in the United States, or student athletes who must meet NCAA eligibility requirements, are required to submit their official SAT or ACT results.

There are additional requirements for applicants whose first language is not English. See additional information (p. 11).

## TRANSFER APPLICANTS

Each year we receive over 3,000 applications for transfer admission. Our most competitive candidates for transfer admission typically have a grade-point average of 3.500 or higher.

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

- Completed Common Application (http://www.commonapp.org) or Coalition Application (http://www.coalitionforcollegeaccess.org).
- Application fee of \$75.
- Official college transcript(s) for all institutions you have attended.
- College Report to be completed by the registrar;s office or dean of your current/previous school.
- Academic evaluation from an academic advisor, professor, or employer.
- Final high school transcript or GED and SAT/ACT scores for students who have completed fewer than 24 college credits (after high school graduation) at the time of the application deadline. This is not required for students who have been out of high school for more than five years. Standardized test scores are not required for students who did not complete high school in the United States.
- Joint Service Transcript (if you are a veteran).
- English proficiency: Northeastern seeks to enroll the most talented and academically qualified students. Even if your English proficiency falls below our recommendations, we have the expertise and necessary academic infrastructure to support students who need to improve their English skills. Our support system includes many oncampus resources and a dedicated prematriculation program called American Classroom. For more information about English proficiency requirements, please visit SlideRoom (https://www.northeastern.edu/ admissions/application-information).
- Portfolios are required for music technology, studio art, and are encouraged for majors within the College of Arts, Media and Design. Northeastern uses SlideRoom (http://www.northeastern.edu/ admissions/application-information) for online portfolio submissions. See additional information (p. 12).


## TRANSFER CREDIT

Students may transfer up to 60 semester hours of credit from a twoyear 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 D'Amore-McKim School of Business and your college or university is not AACSB-accredited, the maximum number of credits that you can transfer to Northeastern is 60 . See also "Residency Requirement (https:// www.northeastern.edu/admissions/application-information/credit)."

College courses completed with a grade of C or better are considered for transfer credit by faculty evaluators. Liberal arts course work taken more than ten years ago and math and science course work completed more than five years ago can be considered by faculty upon enrollment for transfer credit.

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 completed prior to matriculation if the official credential is received after the completion of the first semester. College course work completed at an international institution must be translated into English and evaluated by a recognized credential agency.

## ADVANCED EXAMINATIONS

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.

Current Northeastern University policy limits the number of advanced credits that students may apply toward undergraduate degrees to 32 semester hours. Advanced courses may be used to satisfy any appropriate explicit degree requirements without regard to the number of credits used.

Northeastern currently awards advanced credit for the following examinations:

- Advanced Placement
- British 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. Visit the Transfer Equivalency Database (https://www.northeastern.edu/admissions/ application-information/credit) for an up-to-date AP listing.

Credit awarded: 4-10 semester hours or up to two courses per exam (refer to AP listing).

## British GCE A-Level Examination

The university awards credit for A-level courses with final exam grades of C or better.

## 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 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 in higher-level courses only. Visit the Transfer Equivalency Database (https://www.northeastern.edu/admissions/application-information/ credit) for an up-to-date IB listing.

## 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.

## INTERNATIONAL APPLICANTS

Northeastern accepts the Common Application. Students may apply online via the Common Application (http://www.commonapp.org) or the Coalition Application (http://www.coalitionforcollegeaccess.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 who are studying at schools located outside the United States (Department of Defense school students are required to submit SAT or ACT scores). However, applicants who attend a high school in the United States or who are student-athletes who must meet National Collegiate Athletic Association eligibility requirements are required to submit test scores.

In order to maintain lawful student status in the United States, international students must be mindful of the rules and regulations that govern their nonimmigrant visa classification. Numerous U.S. federal mandates and regulations, including 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 Office of Global Services (OGS) (http://www.northeastern.edu/ogs) before taking any action that might affect their immigration status and educational endeavors in the United States.

International students in $\mathrm{F}-1$ and $\mathrm{J}-1$ status must register as full-time students (minimum of 12 credits), on time (within the appropriate registration period) each term during the regular academic year. In addition, international students must not begin, extend, or resume any type of employment without first obtaining proper employment authorization or verification from the OGS. Any exceptions to full-time registration requirements must be preapproved by the OGS in accordance with specified federal regulations.

In order for prospective F-1 and J-1 students to start their undergraduate program here, they must obtain the certificate of eligibility from OGS. For F-1 students, this document is called Form I-20, and for J-1 students, this document is called Form DS-2019. The international student will need to complete the e-form on the myOGS system and work with the undergraduate admissions office to meet all requirements needed for successful submission of the request for I-20 or DS-2019. Once the request is approved by the undergraduate admissions office, the OGS will get a request for the student's $1-20$ and will need ten business days to generate the student's certificate of eligibility. Students then are able to apply for their F-1 or J-1 visa stamp at a U.S. consulate overseas and, if the visa is granted, enter the United States no earlier than thirty days prior to the start date of their academic program to begin their studies here.

An international student may attend Northeastern in a nonimmigrant status other than F-1 or J-1 only if U.S. Immigration regulations allow for study in the United States under that specific nonimmigrant visa classification. Some international students must apply and be approved for a change of status (e.g., from F-2 to F-1) before beginning their program at Northeastern. For information on nonimmigrant visa statutes other than F-1 and J-1 (including eligibility to work in the United States or participate in co-op and other forms of experiential learning required by your academic program), contact the OGS at ogs@northeastern.edu. Not all visa categories allow for internships, co-ops, international travel associated with an academic program, and/or other experiential learning opportunities. Note that some academic programs at Northeastern have experiential learning requirements (e.g., co-op or study abroad). Nonimmigrant visa statutes other than F-1/J-1 may not allow for those requirements to take place and, as such, may impede the successful completion of your program of study.

## REQUIREMENTS FOR APPLICANTS WHOSE PRIMARY LANGUAGE IS NOT ENGLISH

Students whose native language is not English, regardless of their country of citizenship or residence, are required to submit official results of the Test of English as a Foreign Language (TOEFL), the English Test of the International English Language Testing System (IELTS), or the Pearson Test of English (PTE). A list of accepted English proficiency examinations and the required minimum passing scores are available at the admissions website (https://www.northeastern.edu/admissions). Applicants must present the required minimum passing scores for admission.

COLLEGE, MAJOR, AND LENGTH OF PROGRAM SELECTION
Applicants to Northeastern University apply to one of our seven undergraduate colleges or to the Program for Undeclared Students.

We encourage students to select a major that reflects their current academic interests and aspirations; however, the Program for Undeclared Students provides opportunities to explore our various disciplines and programs. Northeastern offers advisory programs for students interested in preprofessional programs, including medical, dental, law, and veterinary graduate school. Transfer students may not apply to the Program for Undeclared Students.

Northeastern University offers a broad and deep curriculum that is flexible, and the academic calendar allows students to maximize experiential learning opportunities, including research, study abroad, and our signature program, co-op. Students become architects of their own paths, charting their unique course that determines their time to degree. Students can build a program that is four years or five years and gain up to eighteen months of full-time experiential learning opportunities. Freshmen can participate in NUterm in Summer I of their freshman year, taking advantage of exciting and unique course offerings or regular classes during the May/June semester. Students are generally not required to make a decision about their time to degree until the end of the freshman year. By participating in NUterm, students take advantage of Northeastern's signature flexibility, beginning their sophomore year with an additional half term completed. Some specific programs require more than five years to complete. In general, these have been structured so that students are considered to be undergraduates for their first five years and then transition to graduate status within the program. See the detailed curricula in this catalog for more information.

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

## Admission Requirements for the College of Arts, Media and Design

## GUIDELINES FOR PORTFOLIO SUBMISSION

All portfolios should be submitted electronically via SlideRoom (https:// www.northeastern.edu/admissions/application-information). Hardcopy portfolios will not be accepted and cannot be reviewed. Only portfolios from applicants to the College of Arts, Media and Design are reviewed; there is no portfolio review process for other majors. Refer to the undergraduate admissions website (https://www.northeastern.edu/ admissions) for additional portfolio submission guidelines.

## CREATIVE LEADERS PROGRAM

Applicants interested in consideration for the Creative Leaders Program are welcome to submit a portfolio through SlideRoom (https:// www.northeastern.edu/admissions/application-information) to be considered for admission to the program. For updated guidelines for admission and for creating a portfolio, go to the Creative Leaders website (http://www.northeastern.edu/camd/academics/undergraduate/creativeleaders).

## STUDIO ART

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 through SlideRoom (http:// www.northeastern.edu/admissions/application-information). This portfolio requires a minimum of fifteen individual 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 website (http://www.northeastern.edu/camd/artdesign) for more information.

## MUSIC COMPOSITION AND TECHNOLOGY

For candidates applying for admission into the music composition and technology concentration, a portfolio submitted through SlideRoom (https://www.northeastern.edu/admissions/application-information) is required. 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 in digital format. Audio recordings of compositions are highly recommended. Video recordings of live performances of your music are also acceptable.
- 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, one-page statement of your musical background, influences, and goals.

Should music composition and technology faculty determine that they would like additional information, they may arrange an interview with the applicant. Visit the music composition and technology website (http:// www.northeastern.edu/camd/music/academic-programs/bs-in-music-composition-and-technology) 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 Professor Won Hee An, program director for music performance, via email at w.an@northeastern.edu. Auditions are typically scheduled during a student's first semester at Northeastern. For specific questions regarding the program or audition requirements, contact Professor An.

## University Honors Program

Exceptionally motivated students who are seeking an opportunity to enhance their educational experience may be invited to join the University Honors Program. The honors community is an active group of intellectually engaged students who are committed to making a difference at home and in the world. They benefit from unique and challenging academic opportunities, personalized advising, stimulating events, and participation in the honors living and learning communities. Only the most highly accomplished and motivated applicants to Northeastern are invited into the University Honors Program. These students will be notified of their selection in their letter of admission. There is no separate application to the Honors Program. Only students admitted for the fall semester are eligible for consideration.

## Specialized Entry Programs

Northeastern University provides innovative admission and enrollment programs and opportunities that advance the university's mission and help meet students' needs. Students who apply for admission to Northeastern, based on their credentials, may be automatically offered direct entry into some of these programs and, in some cases, may be referred for consideration into other programs. Northeastern is
continually assessing our specialized entry programs and opportunities, and additional programs and opportunities may become available while existing programs and opportunities may be modified. For a complete list of our specialized programs and opportunities, visit the specialized programs webpage (https://www.northeastern.edu/admissions/ academics/specialized-entry).

## The N.U.in Program

Northeastern enrolls selected new students in the spring semester through The N.U.in Program. During the fall semester, N.U.in participants study abroad at a partner institution earning transfer credits that will be valid at Northeastern and enroll in classes as part of the Northeastern community in the spring. These transfer credits earned may only be valid at Northeastern. Other institutions may not accept these credits. Participants have studied at partner institutions located in Australia, Canada, Costa Rica, England, Greece, Ireland, and Spain in past years.

## General Studies Program

General Studies is a first-year program designed to help Northeastern students find academic success in their freshman year and beyond. General Studies students spend their freshman year immersed in a combination of first-year requirements, NUpath courses, and introductory courses for their intended major. See additional information (p. 44).

## Foundation Year

This innovative first-year college program is designed for recent high school graduates and General Equivalency Diploma (GED) completers from the City of Boston who would like to pursue a college education and would benefit from a more structured and supportive first year in order to be successful in the rest of their college career. Foundation Year offers students rigorous academic and career preparation as well as wraparound support services that include advising, tutoring, mentoring, social networking, and work-ready skills.

## Torch Scholars Program

The Torch Scholars Program is a bold and innovative support program for first-generation college students. Torch Scholars are granted admission to the university and awarded a full-tuition, fees, and room-and-board scholarship for our Summer Immersion Program and eight subsequent semesters of undergraduate study.

## The American Classroom Program

The American Classroom is an academic English-language program for motivated students who are interested in matriculating into an undergraduate degree program at Northeastern. Students in the program take classes to improve their English-language skills while also participating in credit-bearing academic courses offered through the College of Professional Studies. Service-learning is a defining characteristic of the American Classroom curriculum. Students in the program engage in weekly community service work, giving them an opportunity to engage in the Boston community, connect their studies to the real world, build experience for their resumé, and exercise their English-language skills. Students may apply directly to the program or they may be referred to the program through the undergraduate admission process. Students who are referred to the American Classroom Program have usually met all the necessary requirements for undergraduate admission but have not yet achieved sufficient Englishlanguage proficiency. The referral entails placement in one of two phases of the American Classroom Program and a conditional offer of admission to Northeastern upon successful completion of the program.

## U.S. Pathways Program

The U.S. Pathways Program (USPP) is a collaboration of the Consortium of North American Universities (CNAU) designed to offer academically qualified students from China and Nigeria an opportunity to pursue undergraduate studies in the United States. In addition to completing the fall and spring terms at USPP sites in China and Nigeria, successful students participate in a U.S.-based Summer Bridge program. Students successfully meeting all academic progression requirements and admissions criteria of their preferred consortium institution may enroll in an undergraduate degree program at one of the CNAU institutions.

## 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.

## National Merit Finalist and National Hispanic Scholar Scholarships

Award: Up to a \$30,000 per year scholarship for admitted freshman applicants who are designated National Merit Finalists or National Hispanic Recognition Program Scholars. Students who are National Hispanic Recognition Program Scholars must submit documentation to Northeastern by the posted deadline. National Merit Finalists must rank Northeastern as their school of choice by the posted listing deadline. Recipients who maintain normal progress toward a degree, with the minimum 3.000 grade-point average, may renew the award for the full eight-semester program.

Eligibility: Admitted freshman applicants who are U.S. citizens or documented permanent residents and have been designated National Merit Finalists by the National Merit Scholarship Corporation (NMSC) and students identified as National Hispanic Recognition Program Scholars.

## Merit Scholarships

Awards: Partial tuition scholarships ranging from \$10,000 to \$25,000. Recipients who maintain normal progress toward a degree, with a minimum grade-point average of 3.000 , may renew these awards.

Eligibility: The top 10 percent to 15 percent of freshman applicants may be considered for these highly selective awards.

## University Scholars Program

Launched in fall 2012, the Northeastern University Scholars Program is a full tuition scholarship program offered to a limited number of students. Individuals invited to join this program have distinguished themselves academically; displayed an entrepreneurial approach to study, achievement, involvement, and life; and have demonstrated curiosity and creativity that extend far beyond the classroom to impact the world around them. The program is intended to meet the interests of students who demand to be challenged, are passionate about learning, and will innovate when given the freedom to explore. Students invited to join the University Scholars Program will be notified of their selection in their letter of admission. There is no separate application, and only students admitted to the fall semester are considered for this program. Scholars will also be expected to participate in Northeastern's Civic Engagement Program and complete 100 hours of community service each year.

## 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 of higher education.

## Ujima Global Leaders Program

The Ujima Global Leaders Program is a scholarship program focused on developing leaders for tomorrow's diverse and complex world. Ujima Global Leaders from all academic disciplines will work collaboratively to develop intercultural competence and awareness by engaging with communities on campus, throughout Boston, and the world. Working with staff and faculty, Global Leaders may choose to make an impact based on their interests and goals via community service involvement, experiential opportunities, and research and global experiences. Committed to excellence, academic achievement, service, and diversity, Global Leaders will be prepared to meet the challenges of tomorrow. The Ujima Global Leaders Program seeks to enroll academically talented first-year students with demonstrated leadership skills, community involvement, and/or an interest in issues related to serving underrepresented and underserved populations. Scholars receive the Ujima Global Leadership Award, and those with demonstrated need will have their full need met. Scholars will also be expected to participate in Northeastern's Civic Engagement Program and complete fifty hours of community service each year.

## The International Scholars Awards

Northeastern University does not offer need-based assistance to international students.

Awards: Merit-based scholarships ranging from \$5,000 to \$20,000. The scholarships reward the outstanding academic achievements of incoming freshman international students. They are awarded for a maximum of eight semesters as long as the student maintains a 3.000 grade-point average.

Eligibility: The top 10 percent to 15 percent of international freshman applicants may be considered for these awards.

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

Office of Undergraduate Admissions
Northeastern University
360 Huntington Avenue
Boston, MA 02115-5000 USA

Website (https://www.northeastern.edu/admissions)
admissions@northeastern.edu
617.373.2200
617.373 .8780 (fax)

Credentials not being submitted online (transcripts and recommendations) should be mailed to our Application Processing Center. Please check the admissions website (https:// www.northeastern.edu/admissions) for the most current address.

Application fees; application fee waiver requests (being sent separate from the application); and FedEx, UPS, or Priority Mail packages must be mailed to the following address:

Office of Undergraduate Admissions
200 Kerr Hall
Northeastern University
360 Huntington Avenue
Boston, MA 02115-5000 USA
For more information, consult the admissions website (https:// www.northeastern.edu/admissions).

## Information for Entering Students

- Student Orientation (p. 15)
- Orientation for International Students (p. 15)
- Parent/Family Programs (p. 15)
- Residential Life (p. 15)
- Health Requirements-University Health and Counseling Services (UHCS) (p. 16)
- English-Language Testing (p. 16)
- Accommodations for Students with Disabilities (p. 16)
- We Care (p. 16)


## Student Orientation

It is mandatory for all new undergraduate students to participate in an orientation program. Students beginning in September will participate in sessions throughout the summer. Those starting in January will participate in a session that will precede the start of the semester. At orientation, students will have the opportunity to learn their way around campus and Boston, as well as prepare for the start of the academic year, and experience what makes Northeastern unique. Students will also register for classes, get their student ID card, and participate in a variety of activities that will help them meet their fellow classmates. Once a student officially commits to the university by paying the enrollment fee, they will have the ability to register for orientation through the Admitted Student Portal.

For additional information, contact the Office of Student Orientation and Parent/Family Programs at 800.696 .6516 or visit the office website (http://www.northeastern.edu/orientation).

Note: International students are required to participate in both Student Orientation and the International Student Orientation, hosted by the Office of Global Services (OGS) (http://www.northeastern.edu/ogs). Both programs take place at the time of move-in, preceding the start of the academic semester.

## Orientation for International Students

The Office of Global Services (OGS) (http://www.northeastern.edu/ ogs) organizes year-round orientation and acculturation programming throughout the year for newly arrived international students and U.S. citizens from abroad. OGS's International Student Orientation provides a unique forum for intercultural interaction and learning, with activities that include an "airport welcome," cultural enrichment programming, information sessions, $\mathrm{F}-1$ or J-1 international student advising, regional excursions, and educational seminars that bring a cross-cultural focus to topics such as academic success, student life, and the dynamics of diversity. OGS's mandatory International Student Online Check-In process and orientation begin 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 holding an $\mathrm{F}-1$ or $\mathrm{J}-1$ visa should plan to arrive several days before the start of the semester as outlined in the OGS orientation schedule in order to attend the scheduled International Student Orientation program and complete the International Student

Online Check-In process. All matriculating international students will have access to a preliminary schedule from the OGS prior to their arrival in the United States. Immediately prior to the start of the semester, the Office of New Student Orientation organizes mandatory orientation and academic advising.

For further details on the OGS International Student Orientation and Online Check-In process, and for other information pertinent to international students, contact:

The Office of Global Services (OGS))
405 Ell Hall
Northeastern University
360 Huntington Avenue
Boston, MA 02115
Website (http://www.northeastern.edu/ogs)
617.373.2310

## Parent/Family Programs

The Office of Student Orientation and Parent/Family Programs also serves as a primary resource for parents and families seeking information on important dates, events, and campus news. As part of the university's effort to stay connected to parents and families, we encourage you to read our electronic newsletter, Parent Matters, and visit our Parent Corner Message Board.

Parents and guardians of students may also create an online Parent Portal account, through which they may be granted access (by the student) to services related to their experiences. Parents may create an account by visiting the myNEU web portal (http://myneu.neu.edu).

For additional information, contact the Office of Student Orientation and Parent/Family Programs at 800.696 .6516 or visit the office website (http://www.northeastern.edu/parents).

## Residential Life

The Department of Residential 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. Residential Life staff are trained in counseling, crisis intervention, and conflict resolution, as well as interpersonal communications, in order to assist our students to achieve their aspirations.

Each hall is supervised by a professional residence director and student resident assistants, who work together to maintain close contact with students to help make their experience living on campus a positive one.

The university offers a variety of housing options tied to specific programs of study for first-year students known as Living Learning Communities (LLCs). The LLCs offer students a supportive, achievementoriented environment with opportunities for friendship around common interests as well as continued learning and sharing outside the classroom. LLCs commonly feature tutoring, advising, and study groups
as well as unique programs designed to promote student growth and advancement.

Health Requirements-University Health and Counseling Services (UHCS)

Prior to entering Northeastern, all enrolled students must complete and submit a Health Report to University Health and Counseling Services (UHCS). It must be completed and returned by the stated deadline. The required record of immunity section is necessary for compliance with the Massachusetts Immunization Requirements for College-Age Students. 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 the UHCS website (http://www.northeastern.edu/uhcs) to access the Health Report online.

## English-Language Testing

NU Global conducts English-language testing for international students who are referred for this service. The testing takes about two hours. The NU Global Test measures English composition, listening comprehension, grammar, vocabulary, and reading comprehension and is administered by the NU Global Office at Northeastern University.

Any department may refer students for testing. Students must arrive on time on designated test days. Referral forms and a schedule of test dates are available to departments by request. Departments should contact cpsadmissions@northeastern.edu for more information.

## Accommodations for Students with Disabilities

Northeastern University and the Disability Resource Center (DRC) are committed to providing disability services that enable students who qualify under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act Amendments Act (ADAAA) to participate fully in the activities of the university. To receive accommodations through the DRC, students must provide appropriate documentation that demonstrates a current substantially limiting disability. Accommodations are provided based on an evaluation of the information provided by students and their clinicians, on a case-by-case basis. Students should provide documentation to the DRC at their earliest convenience to allow for sufficient time for review. After the documentation has been reviewed, a disability specialist will contact the student regarding appropriate next steps. For additional information on the DRC, visit their website (http:// www.northeastern.edu/drc) or contact staff at 617.373.2675.

## We Care

We Care is a program that assists students experiencing unexpected challenges maintaining their academic progress. We Care works with the student to coordinate among university offices and to offer appropriate on- and off-campus referrals to support successfully resolving issues. For further information, contact:

## We Care

104 Ell Hall
617.373.4384

Website (wecare@northeastern.edu)
www.northeastern.edu/wecare (http://www.northeastern.edu/wecare)

## College Expenses

Northeastern University is eager to assist you in developing a plan for financing a Northeastern education. Through a variety of optionsfinancial 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 (http://www.northeastern.edu/financialaid) online or call 617.373.3190.

- Financial Aid (p. 17)
- Student/Parent Loans (p. 17)
- Bill Payment (p. 17)
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## 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 students establish a comprehensive plan to finance their education. To apply for federal financial aid, freshmen and transfer students must submit the Free Application for Federal Student Aid (FAFSA). Additionally, for institutional aid consideration, freshmen and transfer students must also complete the CSS Profile form. 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, visit the myNEU web portal (https:// myneu.neu.edu), click on the "Self-Service" tab, and select "My Financial Aid Status."

## Satisfactory Academic Progress (SAP)

## QUALITATIVE

Student grade-point averages (GPAs) are reviewed annually at the end of spring semester. Freshmen students must have at least a 1.800 GPA by the end of their first academic year and a 2.000 GPA or better thereafter to retain financial aid eligibility. For students completing their sophomore year and beyond, a GPA of 2.000 is required to retain eligibility.

## QUANTITATIVE

Students must also meet certain quantitative requirements. Completed credits are reviewed as a percentage of attempted credits after each academic year. Students must earn at least 67 percent of their cumulative attempted credits to maintain satisfactory academic progress.

## APPEALS

Students who have lost their eligibility for financial aid due to failure to meet qualitative or quantitative SAP standards have the right to submit a letter of appeal to Student Financial Services. Approval of an appeal will be based on extenuating circumstances that had an impact on the student's ability to achieve the minimum standards of SAP and the assurance that the circumstances that caused the deficiencies will not be present going forward. If approved, appeals require a contractual agreement that must be signed by the student and a financial aid administrator.

## 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, D, 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, which is administered through TuitionPay. This plan allows students and families to spread their annual tuition costs over nine, ten, or eleven months. Short-term plans are also available. For additional information, visit the financing options webpage (http:// www.northeastern.edu/financialaid/financingoptions).

## Student/Parent Loans

There are a number of educational loan program options available to assist students in covering expenses over and above any financial aid that may be awarded from Student Financial Services. Most private lenders have credit and income requirements that students and/or parents must meet before being approved for these programs. Additional information regarding private student and parent loan options is available on our website at the financing options web page (http:// www.northeastern.edu/financialaid/financingoptions). 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 is due prior to the start of the term as specified on the original bill. A past-due balance may result in late fees, prevention of registration, prevention of grade release, prevention of participation in international study programs, or withdrawal from the university.

Tuition bills are generated electronically and are available via the myNEU web portal (http://myneu.neu.edu). Paper bills are not generated. For additional information regarding the E-bill, please visit the billing frequently-asked-questions webpage (http://www.northeastern.edu/ financialaid/billingfaq). For details on available payment methods, visit the payment methods webpage (http://www.northeastern.edu/ financialaid/paymentmethods).

## Discrepancies in Your Bill

Discrepancies in a bill should be addressed in writing by the student to the Office of Student Accounts at studentaccounts@northeastern.edu. Include the student's name, NU ID, dollar amount in question, date of invoice, and any other information believed to be relevant.

If there is a billing problem, pay the undisputed portion of the bill to avoid responsibility for any late fees.

## 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.

Adjustments for reduced loads are made only when the Undergraduate Petition to Reduce Load is approved by the academic department and the Office of the University Registrar. International students who wish to drop below 12 credits during the semester must obtain authorization from the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) and may be approved for a reduced course load of fewer than 12 credits but no fewer than 6 credits in accordance with federal regulations. Tuition 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.

Financial adjustments for course work greater than the prescribed curriculum for the term is calculated at the per-credit-hour rate for undergraduate full-time students. Students taking more than 8 credits (summer half session) or 16 credits (full semester) will be charged at 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 for the course. The flat undergraduate tuition rate will be charged for students on co-op enrolled in 12 credits or more.

Visit the tuition-and-fees webpage (http://www.northeastern.edu/ financialaid/tuitionandfees) for a full listing of tuition rates. Also see "Overload Policy (p. 24)" and "Reduced Load Policies (p. 24)."

Undergraduate full-time day students may register for one additional music ensemble course from the following list without added charge:

| MUSC 1904 | Chorus | 1 |
| :--- | :--- | :--- |
| MUSC 1905 | Band | 1 |
| MUSC 1906 | Orchestra | 1 |
| MUSC 1907 | Wind Ensemble | 1 |
| MUSC 1911 | Jazz Ensemble | 1 |
| MUSC 1912 | Rock Ensemble | 1 |
| MUSC 1913 | Blues/Rock Ensemble | 1 |
| MUSC 1914 | Create Your Own Music | 1 |
| MUSC 1915 | Chamber Ensemble | 1 |
| MUSC 1916 | Contemporary Music Ensemble | 1 |
| MUSC 1917 | Jazz Choir and Combo | 1 |
| MUSC 1918 | World Music Ensemble | 1 |
| MUSC 1919 | Fusion Ensemble | 1 |
| MUSC 1920 | Pep Band | 1 |
| MUSC 1921 | World Fusion Ensemble | 1 |

## Delinquent Balances

In cases of student default on tuition payments, the student may be withdrawn from the university and 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, a Student Refund Request must be submitted. This form can be completed through the student's myNEU web portal (http:// myneu.neu.edu), under the "Self-Service" tab.

Visit the financial-aid policies webpage (http://www.northeastern.edu/ financialaid/policies) for additional tips on expediting the processing of a request.

## Refunds for Withdrawal from the University-General Information

Tuition credits are granted based on the date of the official withdrawal processed by the Office of the University 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 (http://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, visit the financial aid website (http://www.northeastern.edu/financialaid). Note that withdrawal policies vary for international study programs. For more information on study-abroad-related withdrawal policies, refer to the Global Experience Office (http://www.northeastern.edu/geo/ studyabroad).

## Refunds for Course Withdrawals

Undergraduate day students should refer to the "Overload Policy (p. 24)" and "Reduced Load Policies (p. 24)" for information on adjustments for withdrawing from individual course(s). For withdrawals from a course after the third week of a full semester, contact studentaccounts@northeastern.edu.

## Refunds for Complete Withdrawal from the University <br> FULL SEMESTERS

Official withdrawal during the first $100 \%$ refund
week
Official withdrawal during the $100 \%$ refund second week
Official withdrawal during the third $100 \%$ refund week
Official withdrawal during the fourth $60 \%$ refund

> week

Official withdrawal during the fifth $40 \%$ refund
week
Official withdrawal after the fifth no refund week

## SUMMER HALF SEMESTERS

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

## Disability Resource Center Adjustments

Students who are registered with Northeastern University's Disability Resource Center are eligible to petition to 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

Full-time freshmen spend two semesters in classes and summer on vacation. Annual costs for upperclass students participating in co-op vary depending on their pattern of attendance. See "Patterns of Attendance" section below. 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 Semester | Per Summer Half <br> Semester |
| :--- | :--- | :--- |
| Tuition | $\$ 23,360$ | $\$ 11,680$ |
| Student center fee | $\$ 70$ | $\$ 35$ |
| Student activities fee | $\$ 127$ (annual fee) |  |
| Campus recreation fee | $\$ 56$ | $\$ 33$ |
| Undergraduate student | $\$ 245$ | $\$ 123$ |

fee
ROOM, BOARD, AND FEES PER SEMESTER

|  | Per Full Semester | Per Summer Half <br> Semester |
| :--- | :--- | :--- |
| Residence activity fee | $\$ 33$ | $\$ 16.50$ |
| Housing | range from $\$ 4,200-$ <br> $\$ 5,350^{1}$ | approximately $1 / 2$ of <br> semester rate |
| Fifteen-meal plan ${ }^{2}$ | $\$ 3,325$ | $\$ 1,663$ |

${ }^{1}$ Rates vary depending on occupancy and assignment. Visit the housing website (http://www.northeastern.edu/housing) for a detailed list of housing rates.
2 See "Dining Services (p. 21)" 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 (p.24)" and "Reduced Load Policies (p. 24).")

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 \$2,800 per year.

Tuition rates, room and board charges, and fees are subject to revision by the Northeastern University Board of Trustees at any time.

## Patterns of Attendance

To plan for tuition and fees better, students and parents should be aware that:

1. Tuition is charged when a student is taking classes/earning academic credit. Tuition is not charged for co-op (although the student will pay room and board if he or she stays in a university residence hall while on co-op and will be assessed tuition if enrolled in a class).
2. Financial aid will be distributed to match the student's academic program and tuition bills.

Northeastern University's calendar enables students to participate in six-month co-op assignments. Each academic year has two full semesters (fall semester, September-December, and spring semester, January-April) and two half semesters of about seven weeks each (summer 1, May-June, and summer 2, July-August). The six-month coop assignments generally span either the spring plus summer 1 terms or the summer 2 plus fall terms.

The co-op schedule is flexible, but generally, students alternate periods in class with periods on co-op. All students are required to complete their program in the classroom, rather than on a co-op assignment, so their last semester will be in the classroom. For specific patterns of attendance for particular majors, consult the program plan for that major.

For students entering in September of 2016:

- All patterns of attendance require that students attend the first three full semesters (fall 2016, spring 2017, and fall 2017) before going on co-op.
- Students may choose to take classes during the summer half semesters between spring 2017 and fall 2017 but are not required to do so.
- Approximately half of the class entering in fall 2016 will go on co-op during the spring/summer 1 semesters of 2018 (January-June).
- The other half of that class will go on co-op during the summer 2/fall semesters (July-December).
- Most students will take classes during either summer 1 or summer 2 of 2018, during the time when they are not on co-op.


## Fees Required of All Students

The following fees are required of all students:

## APPLICATION FEE

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

## ENROLLMENT DEPOSITS

A nonrefundable enrollment deposit, which is applicable toward the first semester's bill, is due by January 15, 2016, from students accepted for Early Decision and by May 2, 2016, from all other accepted freshman students entering in September 2016. A \$250 international student fee
is included in the enrollment deposit for international students. This fee supports programs and services provided by the Office of Global Services (OGS) (p. 21) on campus. Housing is required for all first- and secondyear students entering as freshmen. 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.

## UNDERGRADUATE STUDENT FEE

The mandatory undergraduate student fee supports enrollment-related services throughout the student's first year, including new student orientation and welcome week activities. Beyond the first year, the fee supports subsequent enrollment services and support in addition to costs related to ongoing communication to students and parents. The \$245 undergraduate student fee is assessed each in-class or studyabroad term for undergraduate students. During summer half semesters, the fee is prorated.

## 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 $\$ 127$ to support student clubs.

## CAMPUS RECREATION FEE

All undergraduate students at Northeastern University will be assessed a campus recreation fee of $\$ 56$ per in-school full semester or $\$ 33$ 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 students at orientation and registration. Students must have a valid Husky Card to use at most university facilities. A replacement card costs $\$ 25$.

## NORTHEASTERN UNIVERSITY STUDENT HEALTH PLAN (NUSHP)

Since September 1989, Massachusetts law (Massachusetts General Laws, Chapter 15A, Section 18) has required every full-time and parttime student enrolled in a Massachusetts institution of higher learning to participate in a student health insurance program (SHIP) 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 (http://myneu.neu.edu)by the designated deadline date each academic year. For deadlines and additional information, visit the NUSHP website (http://www.northeastern.edu/nushp).

## Additional Fees

Other fees may include the following:

## HOUSING APPLICATION/DEPOSIT

New students must submit a nonrefundable $\$ 600$ enrollment deposit along with a completed housing application form to complete the housing application process. Housing is required for all first- and secondyear students entering as freshmen. The upperclass housing deposit is \$200 for each full semester and for each summer half semester.

## RESIDENCE HALL ACTIVITIES FEE

All students living in the residence hall system pay a full-semester $\$ 33$ fee or half-semester $\$ 16.50$ 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. The fee supports programs and services available at the OGS.

## Room and Board

ROOM RATES PER SEMESTER
Visit the Residential Life website (http://www.northeastern.edu/housing) for a complete display of room rates and residence halls.

## TERMINATION CHARGE AND ROOM RATE ADJUSTMENTS

The university provides on-campus and leased accommodations that are assigned each term. Students are billed at the beginning of each term and are obligated to pay the full charge for the term. The high demand for on-campus housing makes it necessary for Housing and Residential Life to enforce its cancellation policy strictly. It is imperative to note that a student whose Residence Hall and Dining License Agreement is revoked for disciplinary reasons is subject to the same financial assessments as outlined below.

Students who are suspended or expelled from the university will have their current and any active housing application(s) canceled effective the date of suspension. When suspension or expulsion is sanctioned, the student will be charged according to the "Termination Credit Policy for Official Withdrawal from the University" below. All housing deposits on file will be forfeited. Upon readmittance to the university, the student must reapply for housing and if capacity has been reached, the student will be placed on the housing wait list.

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 check out properly with their resident director. Housing charges for students who withdraw from the university will be prorated only through the end of the fifth week of full semesters and through the end of the fourth week of summer half semesters.

| Termination Credit Policy for Official Withdrawal from the University <br> Fall and Spring Semesters |  |
| :--- | :--- |
| Official Withdrawal from University | Room Charge Credited |
| Week 1 | 100 percent $^{1}$ |
| Week 2 | 90 percent $^{1}$ |
| Week 3 | 80 percent $^{1}$ |
| Week 4 | 60 percent $^{1}$ |
| Week 5 | 40 percent $^{1}$ |
| After week $5^{2}$ | 0 percent $^{2}$ |

1 This credit can also be based on the daily charges of time used.
${ }^{2}$ Students withdrawing after week 5 incur a 100 percent room charge for the term.

## Summer Half Semesters

| Official Withdrawal from University | Room Charge Credited |
| :--- | :--- |
| Week 1 | 100 percent $^{1}$ |
| Week 2 | 75 percent $^{1}$ |
| Week 3 | 50 percent $^{1}$ |
| Week 4 | 25 percent $^{1}$ |
| After week $4^{2}$ | 0 percent $^{2}$ |
| 1 |  |

## Termination Charge Policy for Cancellation from the Residence Halls for Matriculating Students

Failure to provide timely, written notification of cancellation of housing will result in a charge to students for their assigned space. For example, if you are assigned to a room for the fall semester with a rate of $\$ 5,100$ and you cancel your housing on June 20, 2016, you will be assessed 50 percent of your room rate, which is $\$ 2,550-$ not 50 percent of your deposit for the fall term.

If you cancel your housing prior to receiving an assignment, you will be assessed a cancellation fee according to the cancellation schedule at the rate of a standard double room for freshmen or a standard double in an apartment for upperclass and graduate students. If the cancellation deadline has passed, students who can demonstrate a significant change in academic, co-op, or financial circumstances may petition for a waiver of this charge. See the following cancellation charge schedule:

| Amount Charged | For Fall Semester | For Spring Semester | For Summer 1 | For Summer 2 |
| :---: | :---: | :---: | :---: | :---: |
| Deposit refunded; no charge | Before $5 / 15 / 16$ | Before 10/1/16 | Before 3/1/17 | Before $4 / 15 / 17$ |
| 25 percent of term room charge ${ }^{1}$ | After 5/15/16 | After 10/1/16 | After 3/1/17 | After 4/15/17 |
| 50 percent of term room charge ${ }^{1}$ | After 6/15/16 | After $10 / 15 / 16$ | After 3/15/17 | After 4/30/17 |
| 75 percent | After 7/15/16 | After 11/1/16 | After 4/1/17 | After 5/15/17 |

## of term room

charge ${ }^{1}$
100 percent After 8/1/16 After 12/1/16 After 4/15/17 After 5/29/17 of term room
charge ${ }^{1}$
${ }^{1}$ The student's deposit for the term is applied to the cancellation charge assessed.

## DINING SERVICES

All students living in university residence halls, that require students to have a meal plan, 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 residence halls are required to have a traditional meal plan. They are required to have at least a 10-meal plan except for those living in university apartments with kitchen facilities. Freshmen living in university apartments with kitchen facilities are required to have at least a 5-meal plan.

Students living in a meal-plan-required residence hall are automatically billed for the 15 -meal plan but can increase to a 19-meal plan or decrease to a 10-meal plan. All other students may choose to enroll in a meal plan via the Self-Service tab on the myNEU web portal (http:// www.myneu.neu.edu).

Changes to the meal plan are made via the Self-Service tab on the myNEU web portal (http://myneu.neu.edu). Deadlines apply. Visit the Husky Card website (http://www.northeastern.edu/huskycard) for details.

For information about menus and dining locations, visit the dining website (http://www.nudining.com).

The traditional meal plan rates for 2016-2017 are shown below. For updated meal plan rates, visit the tuition and fees webpage (http:// www.northeastern.edu/financialaid/tuitionandfees).

| Meals per Week | Full Semester | Summer Half Semester |
| :--- | :--- | :--- |
| 19 | $\$ 3,600$ | $\$ 1,800$ |
| 15 | $\$ 3,325$ | $\$ 1,663$ |
| 10 | $\$ 2,880$ | $\$ 1,440$ |
| 5 | $\$ 1,475$ | $\$ 738$ |

## PROFILER MEAL PLANS

The nonrefundable profiler meal plan is a block of meals that are provided in lump sum and can be used at the student's discretion. Profiler options are available to all students. However, these plans cannot take the place of a required, traditional meal plan.

Profiler meal plans end in August at the end of summer 2 semester. Students are advised to pay close attention to the end dates, as unused meals do not roll over and will not be refunded. Profiler meal plans for 2016-2017 are valid from August 28, 2016, through August 26, 2017, and may be used at:

- Levine Marketplace
- Stetson West
- International Village
- Outtakes
- Rebecca's Café in Churchill Hall
- West End in Curry Student Center

Note: Dining locations are limited during the summer.
The profiler rates for 2016-2017 are shown below. For updated rates, visit the tuition and fees webpage (http://www.northeastern.edu/ financialaid/tuitionandfees).

| Meals | Cost |
| :--- | :--- |
| 25 | $\$ 405$ |
| 50 | $\$ 790$ |
| 86 | $\$ 1,330$ |
| 110 | $\$ 1,670$ |

Profiler plans are nonrefundable and cannot be modified.

## Husky Dollars

Students can deposit funds into a Husky Dollar account and access these funds using their Husky Card at many restaurants and retail locations on and off campus, including the university's bookstore.

Note that the account accrues no interest and cannot be used for cash withdrawals. Visit the Husky Card website (http://www.northeastern.edu/ huskycard) 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. 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

The following academic integrity policy was designed and approved by the Student Government Association and was also approved by the Faculty Senate.

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 community-students, 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 the Office of Student Conduct and Conflict Resolution website (http://www.northeastern.edu/osccr) for a full description of these policies and procedures.

## Honor Code

The following honor code was designed and approved by the Student Government Association:

On my honor, I pledge to uphold the values of honesty, integrity, and respect that are expected of me as a Northeastern student.

## Code of Student Conduct

The Code of Student Conduct (http://www.northeastern.edu/osccr/code-of-student-conduct) is available online.

## Accommodations for Students with Disabilities

Northeastern University and the Disability Resource Center (DRC) are committed to providing disability services that enable students who qualify under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act Amendments Act (ADAAA) to participate fully in the activities of the university. To receive accommodations through the DRC, students must provide appropriate documentation that demonstrates a current substantially limiting disability. Accommodations are provided based on an evaluation of the information provided by students and their clinicians, on a case-by-case basis. Students should provide documentation to the DRC at their earliest convenience to allow sufficient time for review. After the documentation has been reviewed, a disability specialist will contact the student regarding appropriate next steps. For additional information on the DRC, visit their website (http:// www.northeastern.edu/drc) or contact staff at 617.373.2675.

## 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 applicable courses. Classes for day students are normally scheduled from 8:00 a.m. to 5:40 p.m., 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. University-sponsored 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). 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 or her religious beliefs, to attend classes or to participate in any examination, study, or work requirement should be provided with an opportunity to make up such examination, study, or work requirement that he or she may have missed because of such absence on any particular day; provided, however, that such make-up examination or work should not create an unreasonable burden upon such school. 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. A student with such an absence will not be penalized in any way.

## Absence Because of Military Deployment

See "Leave of Absence Due to Military Deployment (p.33)."

## 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 should notify their academic advisor and instructors as soon as possible 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 that the class absence is warranted. Faculty and students should note that the University Health and Counseling Service does not provide sick notes or medical excuses except for long-term illness. One approach to documentation of shortterm illness is that students themselves draft and sign absence notes to be provided to their instructors upon their return to class, with integrity in this process an expectation of the Northeastern Academic Integrity Policy. 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 academic advisor by letter, email, or telephone. The expected length of the absence may determine whether the student should apply for a medical or emergency leave of absence (p. 32). It is strongly recommended that the student contact his or her academic advisor to discuss potential next steps, which could include incomplete grades; withdrawal from classes; 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.

## Student Evaluation of Courses (TRACE)

Students play a critical role in the university's commitment to quality teaching and academic excellence when they participate in the evaluation of courses through TRACE (Teacher Rating And Course Evaluation), a survey developed collaboratively by the Student Government Association and the Faculty Senate. TRACE data are important in the process of course design and improvement, as well as in the process of faculty evaluation. Students are expected to participate in TRACE with constructive feedback that is relevant to teaching and course content.

TRACE results from previous terms can be found on the myNEU web portal (http://www.myneu.neu.edu).

## Registration and Taking Courses

Students are expected to register 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 (http://www.myneu.neu.edu). Students must complete "I Am Here" registration just prior to the start of classes to remain enrolled. Class adds must be registered by the end of the seventh class day.

## 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 Principles of Macroeconomics
(ECON 1115), ECON is the subject code, and 1115 is the four-digit number.

The four-digit number indicates the level of the course as indicated below.

| UNDERGRADUATE |  |
| :---: | :---: |
| 0001-0999 | Orientation and basic |
|  | No degree credit |
| 1000-1999 | Introductory level (first year) |
|  | Survey, foundation, and introductory courses, normally with no prerequisites and designed primarily for students with no prior background |
| 2000-2999 | Intermediate level (sophomore/ junior year) |
|  | Normally designed for sophomores and above, but in some cases open to freshman majors in the department |
| 3000-3999 | Upper intermediate level (junior year) |
|  | Designed primarily as courses for juniors; prerequisites are normally required, and these courses are prerequisites for advanced courses |
| 4000-4999 | Advanced level (senior year) |
|  | Designed primarily for juniors and seniors; also includes specialized courses such as research, capstone, and thesis |

GRADUATE

| 0001-0999 | Orientation and basic |
| :--- | :--- |
| $5000-5999$ | No degree credit |
|  | First-level graduate |
| Courses primarily for graduate |  |
| students and qualified |  |
| undergraduate students with |  |
| permission |  |

\(\left.\begin{array}{ll}\hline 6000-6999 \& Second-level graduate <br>
\hline Generally for master's and clinical <br>

doctorate only\end{array}\right\}\)| Third-level graduate |
| :--- | :--- |
| Master's- and doctoral-level |
| courses; includes master's thesis |

## Class Schedule

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 class 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 in which the course is offered 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.

During the terms when they are teaching, faculty members are expected to provide sufficient conference time to meet the instructional and advising needs of their students.

## Fall and Spring Schedule

| Sequence 1 | MWTh | 8:00-9:05 |
| :---: | :---: | :---: |
| 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 | WF | 11:45-1:25 |
| Sequence F | TuF | 1:35-3:15 |
| Sequence G | TuF | 3:25-5:05 |
| Sequence H | Tu | 11:45-1:25 |
|  | and Th | 2:50-4:30 |
| Sequence L | MWTh | 8:00-11:35 |
| Sequence M | MWTh | 11:45-2:40 |
| Sequence N | MWTh | 2:50-5:40 |
| Sequence $P$ | MWTh | 8:00-10:20 |
| Sequence Q | MWTh | 10:30-1:25 |
| Sequence R | MWTh | 1:35-5:40 |
| Sequence $S$ | MWTh | 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 | MTuWTh | $11: 40-1: 20$ |
| Sequence A | MW | $8: 00-11: 30$ |
| Sequence B | MW | $1: 30-5: 00$ |
| Sequence C | TuTh | $8: 00-11: 30$ |
| Sequence D | TuTh | $1: 30-5: 00$ |

## Course Syllabus

Faculty members are expected to distribute a syllabus at the start of each course. The syllabus should also be placed on the course Blackboard site. The syllabus should include a schedule of topics, exam and assignment due dates, information on how to contact the faculty member, process for conference time, grading and attendance policies, and a reminder of the university's academic integrity policy.

## Course Prerequisites

Students are expected to meet prerequisites as listed in the course description of each course in which they enroll. Grades of $\mathrm{F}, \mathrm{U}, \mathrm{I}$, 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 (p.18) 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 advisor 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-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. 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 fullsemester tuition for that semester per semester hour.

International students must speak with an advisor at the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) prior to dropping a course. Permission to drop below full-time status is restricted according to federal regulations.

## Audit Policy

Full-time Northeastern students (16 credits at the undergraduate level and 8 credits at the graduate level, before the audit registration) may audit one class per term as an overload with no additional charge. Students are permitted to register from the end of the course-add period to the end of the third week of classes. Registration is based on the availability of a seat in the class. Students must obtain advisor approval and meet the prerequisites and any other required approvals for the class. Instructor permission as well as approval by the associate dean of the college offering the course is required. The course work required is at the discretion of the instructor. Once a student opts to audit a course, the audit status of the course cannot be changed. Firstyear students may not audit classes. A signed Petition to Audit (http:// www.northeastern.edu/registrar/form-petition-to-audit.pdf) must be presented to the Office of the Registrar during the designated auditadd period. Excluded courses are co-op, labs, language courses, any offcampus course, any online course, and any course required for the major or degree. Audits carry no academic credit.

## 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 academic 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" above.)

## 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 education 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 academic advisor and the graduate school offering the courses, 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 academic advisor. 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 academic 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 academic student services office approves the course enrollment, the student pays the bill and then returns the completed forms to the Office of the Registrar.

## Dropping Courses

Not attending class does not constitute withdrawal. Students receiving a grade of W 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 (http://www.myneu.neu.edu).
- Between the fourth week and the last day of classes, course withdrawals are indicated by a W on the student's record. Courses may be dropped via the myNEU web portal (http:// www.myneu.neu.edu). No financial adjustment is made for courses receiving a W grade.
- After the last day of classes, 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 (http:// www.myneu.neu.edu).
- Between the third week and the last day of classes, course withdrawals are indicated by a W on the student's record. Courses may be dropped via the myNEU web portal (http:// www.myneu.neu.edu). No financial adjustment is made for courses receiving a W grade.
- After the last day of classes, 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, seven class days. 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.

The Late Course Registration form (http://www.northeastern.edu/ registrar/form-late-reg.pdf) is available online.

## Final Examinations and Related Policies on Other Exams and Final Term Papers/Projects

- Final examinations are normally two hours in length and must be held when and where scheduled. Final exams are held during a designated final exam period at the end of the semester. An examination schedule is posted at the beginning of each semester at the finalexam schedule webpage (http://www.northeastern.edu/registrar/ finexsched.html).
- Students are responsible for knowing the time and location of their examinations. Final exam schedules are available to students online via the myNEU web portal (http://www.myneu.neu.edu) under "My Schedule" in the "Self-Service" tab approximately the fourth week of the term.
- Students who have two examinations scheduled at the same time or three exams on the same day may complete and submit the Final

Exam Conflict form (http://www.northeastern.edu/registrar/form-finex-conflict.pdf) by the posted deadline.

- Instructors may not give more than thirty total minutes of examinations during the eight calendar days prior to the start of the final exam period.
- Students who have concerns about exams scheduled during the eight calendar days prior to the start of the final exam period, rescheduling of final examinations, or conduct during an examination should report their concerns to their college academic student services office.
- All final examinations, term papers, or projects must be returned to the student or be retained by the department for a period of one year.


## Course Credit Guidelines

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. The Office of the Registrar, 271 Huntington Avenue, 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.

## Grading System

Grades are officially recorded by letters, evaluated as follows.

| Letter Grade | Numerical Equivalent | Explanation |
| :---: | :---: | :---: |
| 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 | Failure |
| 1 |  | Incomplete |
| IP |  | In progress |
| NE |  | Not enrolled |
| NG |  | Grade not reported by faculty |
| S |  | Satisfactory (pass/ fail basis; counts toward total degree requirements) |
| U |  | Unsatisfactory (pass/ fail basis) |


| X | Incomplete (pass/fail <br> basis) |
| :--- | :--- |
| L | Audit (no credit given) |
| T | Transfer |
| W | Course withdrawal |

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

The IP grade is intended for courses that extend over several semesters. The time restrictions on the incomplete grade do not apply to the IP grade. While the IP grade is left unchanged, it is not included in computing the grade-point average. If the IP grade is never changed, the course does not count toward graduation 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, minor, or NUpath requirements. The college faculty, however, may choose to adopt the pass/fail system of grading when it appears pedagogically sound for required courses within a major or minor.
- 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.
- To use the pass/fail system, students must meet all prerequisites for the course and declare by the end of the second week of the semester their intention to receive a pass/fail grade. This deadline may be extended to the end of the eighth week of a full semester or the end of the fifth week of summer half semester at the option of the instructor
- Students must submit a Petition to Elect Pass/Fail Grade (http:// www.northeastern.edu/registrar/form-passfail.pdf), signed by the faculty member.


## Clearing an Incomplete or Changing Other Grades

An incomplete 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 may make up an incomplete 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 incomplete grade and for changing a grade other than an incomplete 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 incomplete grades, may be required by their college academic advisor to rectify the deficiencies within a period of time less than the normal year.

To clear an incomplete grade, a student must obtain an Incomplete-Grade Contract (http://www.northeastern.edu/registrar/form-inc-grade.pdf) on which the precise agreement for clearing an incomplete grade is specified and which is signed by the student and the instructor. The student must make an appointment with the instructor to arrange for clearing the incomplete 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 academic 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 (ASC) of the college in which the course was offered and must be forwarded in writing by the ASC 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 ASC of the college in which the course was offered and must be forwarded in writing by the dean to the Office of the Registrar for implementation.

## Repeating Courses

When the appropriate course is available, students may repeat a course 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 for all repeated course work.

## Substituting Courses

In some cases, it may not be possible to repeat a course if a student wishes to do so. In unusual 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. Students should consult with their 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 a given course is a prerequisite for future course work. Deficiencies may 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 "repeat" 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.

## Appeal of Final Grades

Under certain circumstances, students have the right to appeal final grades given by either academic faculty or cooperative education coordinators. Criteria and procedures for such appeals can be found in the Undergraduate Student Handbook.

## 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 Hours | Weight |
| :--- | :--- | :--- | :--- |
| B | 3.000 | 4 | 12 |
| A | 4.000 | 1 | 4 |
| Totals: |  | 5 | 16 |

The GPA for both courses would then be the total weight (16) divided by the total semester hours (5), or 3.200. Grades of I, IP, S, U, and X are not included in the calculation of the GPA. See grade table (p. 26) 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 (http:// www.myneu.neu.edu). A missing grade means that none was received from the instructor. Grades received late from faculty are processed as they are received.

## Transcripts

Currently enrolled students may obtain unofficial transcripts from the myNEU web portal (http://www.myneu.neu.edu) and may also order official transcripts through myNEU. For further information on transcript requests, visit the transcript request webpage (http:// www.northeastern.edu/registrar/trans_request.html). All questions concerning transcript requests should be directed to 617.373.2300, TTY 617.373.5360.

Academic Honors

## Dean's List

A dean's list, or honors list, is issued at the end of each fall and spring semester. Effective fall 2010, the requirements to be on the dean's list are a 3.500 grade-point average (GPA) or higher with no incomplete 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.

## Graduation with Honors

Graduation with honors and selection as the class marshal are reserved for undergraduates who have completed 60 semester hours in residence and meet the following GPA requirements to graduate with honors:

| GPA | Honor Conferred |
| :--- | :--- |
| $3.500-3.699$ | Graduate with honor (cum laude) |
| $3.700-3.849$ | Graduate with high honor (magna <br> cum laude) |
| $3.850-4.000$ | Graduate with highest honor <br> (summa cum laude) |

Note: The university reserves the right to change these standards.

## University Honors Program Distinction

University Honors Program Distinction is earned by those students who have completed six honors courses, including an Honors Interdisciplinary Seminar, and who have maintained a cumulative GPA of 3.500 . The honors course requirement is adjusted for students who join the University Honors Program as second-semester first-year students (five honors courses) or as rising sophomores (four honors courses). Entering first-year students are invited to join based on a combination of their high school academic preparation, SAT/ACT scores, and leadership/civic engagement record. See the program's website (http:// www.northeastern.edu/honors) for information about the guidelines on how continuing students may join.

## Honors in the Discipline

Honors in the Discipline is earned by those students who successfully complete college-defined requirements, generally culminating in a Junior/ Senior Honors Thesis or a Junior/Senior Honors Project. This distinction will appear on the transcript (for example, "Honors in Music" or "Honors in Chemistry"). Detailed information about Honors in the Discipline is provided under each college's website.

## Academic Progression Standards

## Faculty Advisor Communication Tool (FACT)

FACT warns students and their advisors of difficulty in courses. This warning is important for students' success, especially for students with a cluster of academic problems. Faculty members are expected to submit warnings by the fifth week of the semester, early enough for correction of the performance or for withdrawal from the course, if appropriate. FACT warnings and/or progress reports for student-athletes are necessary for NCAA compliance.

## Academic Status

Academic progress of all students is reviewed by academic advisors at the end of each semester. 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 grade-point average (GPA)
2. Semester hours successfully completed
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
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. See financial aid implications under "Financial Aid (p. 17)."

## 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 or fewer than 4 earned semester hours in any 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 Office of Global Services (OGS) (http://www.northeastern.edu/ogs) 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 GPA 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

See "Repeating Courses (p. 27)" and "Clearing an Academic Deficiency (p. 27)."

## Definition of Freshman, Sophomore, Junior, and Senior

For undergraduate day students, freshman, sophomore, junior, and senior standing are determined by earned semester hours:

| Freshman | Less than 32 semester hours |
| :--- | :--- |
| Sophomore | At least 32 but less than 64 <br> semester hours |
| Junior | At least 64 but less than 96 <br> semester hours |
| Senior | At least 96 semester hours |

## Graduation Requirements

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

In addition, each program of study has specific academic requirements. These are specified for each program under the various schools and colleges 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 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. See also "Residency Requirement," below.

Prior to completion of their program, students are expected to complete a graduation degree audit at their college's academic student services office.

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

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Residency Requirement

In addition to meeting all degree and major requirements, students must earn a minimum of 64 Northeastern University semester hours to receive a bachelor's degree. Established exchange programs, where students are earning two degrees, one from Northeastern University and one from another institution, require students to earn a minimum number of Northeastern University semester hours as specified by the exchange program. Specialized programs for students with preexisting credentials have specific residency requirements.

## Commencement

Attendance at Commencement is optional. Information concerning Commencement is provided to all graduating seniors during the spring semester. 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.

## Degrees, Majors, and Minors

## Declaring Majors and Minors

Undergraduate students may declare their majors upon admission to the university or may elect to join programs for undeclared students before declaring a major. Students must declare a major no later than the end of the sophomore year. Majors and concentrations 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, generally, no later than the end of the junior year, by applying to the department offering the minor. Completion of the requirements of a major, minor, or concentration is noted on the transcript.

## Changing Majors

Undergraduate students enrolled full-time in one or more of the university's undergraduate schools or colleges may change their major if they meet one of the following transfer criteria:

- The student meets the criteria for immediate entry as defined by the receiving major.
- The student has a cumulative grade-point average (GPA) of 2.000 or greater and satisfactorily completes the transition criteria as defined by the receiving major. For GPA below 2.000 , change of major is at the discretion of the receiving major.

Students who are considering a major change must discuss their change in person with an advisor in the receiving major. See the online list of advising offices (http://www.northeastern.edu/registrar/changemajoroffices.html). The advisor will certify that the student meets the criteria for immediate entry to the major or will set up a transition term for the student to satisfy the change-of-major criteria. Advisors will discuss the student's ability to succeed in the desired program given the current academic record as well as the influence of changing major on the student's ability to obtain a degree in the desired program within the traditional eight-academic-term time frame.

Transition criteria are designed to help ensure that students who change major have a reasonable chance of academic success and program completion. A list of school and college transition criteria is maintained at the website of the respective school or college. Students wishing to join some majors must also audition or submit a portfolio, as indicated on the aforementioned web page. Note also that some colleges have deadlines for applications to change major, also indicated on the aforementioned web page.

International students must inform the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) of any change of major.

## Northeastern Explore Program

The Northeastern Explore Program provides support and guidance to first-year students who have not yet decided upon or officially declared a major. All students must declare a major no later than the end of the sophomore year. Undeclared students are strongly encouraged to declare a major by the beginning of their sophomore year if they are interested
in highly structured programs or in maximizing their number of co-op placements within such a major. Admission to a particular major is dependent on the transfer criteria described above.

The D'Amore-McKim School of Business, the College of Engineering, and the College of Computer and Information Science also each provide resources to facilitate a major choice for students who enter their respective colleges with undeclared majors.

## Double Major

Students may earn a double major by gaining admission to the second major and by completing all requirements for both majors. Because some double majors will have a significant overlap in courses, all double-major proposals must be approved by the home college of each major in the proposed double major. Students completing a double major receive one degree and one diploma. The two majors appear on the transcript. If the two majors are in different colleges, the degree is associated with the major in the home college.

## Second Northeastern University Bachelor's Degree

To earn a second Bachelor's Degree after earning a first Bachelor's Degree from Northeastern, a student must be granted admission to the second program, enroll at Northeastern and complete all requirements for the second major that are not already on the student's transcript. Outdated coursework may not be accepted. Students must earn a minimum of 32 semester hours beyond those earned toward the first degree. A second diploma will be awarded and the second degree will be noted on the transcript.

Students must complete an application with the home college of the intended degree. Some programs may require prerequisites prior to admission. Students should apply by the normal transfer deadline to ensure timely consideration. The college makes the determination on admission, notifies the student of this decision, and if the student is admitted, provides the student with a program of study, and reactivates the student's record. International students must consult with an advisor in the Office of Global Services to request updated documentation reflecting engagement in the second Bachelor's Degree program.

## Combined and Independent Majors

Students with academic interests not available in the context of existing majors, minors, and double majors may propose a combined or independent major. In these majors, students pursue in-depth study in areas that are supported and approved by the appropriate Northeastern faculty members.

## COMBINED MAJORS

Combined majors include at least nine courses associated with each of two participating disciplines. There must be at least one course that acts as a bridge between the disciplines. No more than two courses may count for both disciplines, i.e., there must be at least sixteen courses in the combined major. The combined major should be declared by the end of the first semester of the junior year. It is generally advantageous to declare the combined major as early as possible, especially when highly structured disciplinary components are involved. There are three categories of combined majors:

1. A number of defined combined majors currently exist where the curriculum is specific to each individual program; see the online list of current combined major program options (http:// www.northeastern.edu/registrar/major-2.html\#defined).
2. A number of disciplines have preapproved template programs that may be paired in a variety of combinations to yield combined majors;
see the online list of current preapproved template programs (http:// www.northeastern.edu/registrar/major-2.html\#templates).
3. Disciplines will consider combined programs upon student request.

## Currently Defined Combined Major

Students may request admission to a currently defined combined major by following the standard procedure for changing majors. A home college is designated, in which the student will be registered and from which he or she will be graduated. Students completing a combined major receive one degree and one diploma. The combined major and home college will appear on the transcript and diploma.

## Student-Requested Combined Major

Students may request admission to a new combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf) that requires approval by both disciplines/colleges together with an approved curriculum. The request may be for a combined major comprised of preapproved template programs or for a new combined major to be considered by the participating disciplines. During the planning process, advisors from both disciplines will be designated, and one will be identified as the primary advisor. If the two disciplines partnering in the combined major are in different colleges, a home college will be designated in which the student will be registered and from which he or she will be graduated. A meeting of the student and both advisors representing the two disciplines must be held to plan the combined-major curriculum and to consider NUpath requirements. See the online list of discipline advisors and college contacts for new studentrequested combined majors (http://www.northeastern.edu/registrar/ contacts-stu-req-combined.html).

Students completing a combined major receive one degree and one diploma. The combined major and home college will appear on the transcript and diploma. When the two components of the combined major individually offer different degree designations, the degree designation that will appear on the transcript and diploma will be designated during the approval process.

## INDEPENDENT MAJORS

In the rare cases when students have academic interests that fall within the expertise of Northeastern faculty members and that are not available in the large number of existing majors, minors, and combined majors, they may propose an independent major. Independent majors form an integrated program focusing on some issue, theme, or subject area not available within the context of existing curricula. These programs should be equivalent in depth and coherence to existing majors and may involve an integrative project. No student with less than a 3.250 grade-point average will be approved for an independent major. The proposal must be approved by the end of the first semester of the junior year. Proposals will not be considered before the end of the freshman year. For initial information and advice, interested students should consult the associate dean overseeing undergraduate studies in their current home college or the college most relevant to the proposed course of study.

The student assumes the initiative in formulating an independent major. High degrees of student initiative and self-reliance are also necessary for completion of this type of major. The student is responsible for securing the advice and approval of faculty mentors, at least one from each of the disciplines. These faculty mentors will help the student design the curriculum. The faculty mentors will guide the student's academic progress through the major. The student should select one of the faculty mentors as the primary mentor.

If the disciplines partnering in the independent major are in different colleges, the college of the primary mentor will be designated as the home college, in which the student will be registered and from which
he or she will be graduated. Students completing an independent major receive one degree and one diploma. The independent major and home college will appear on the transcript and diploma. When the components of the independent major individually offer different degree designations, the degree designation that will appear on the transcript and diploma will be designated during the approval process.

The student, with the assistance of the faculty mentors, must formulate in writing and submit to the home college curriculum committee an Independent Major Approval form (http://www.northeastern.edu/ registrar/form-maj-ind.pdf) bearing the signatures of all faculty mentors and a proposal containing the following items:

- A statement of the central concept around which the independent major is organized and a rationale for the major, including a discussion of why existing programs are inadequate to the student's purpose and how the proposed major meets the student's educational, professional, or personal goals
- A list of courses, including names, numbers, prerequisites, and frequency of offering (if known), and a breakdown of the introductory, intermediate, and advanced courses included in this list
- A statement of the manner in which the requirements of the university core are fulfilled (and, if applicable, BA core requirements (p. 37))
- A list of courses (including numbers, names, and grades) already taken that will apply to the major or to the university core (and BA core, if applicable) requirements
- A student transcript
- A calendar for completion of the degree

A meeting of all faculty mentors and the student must be held before college approval of the major program. In accepting the proposal, the home college dean's office certifies that the rules established for the independent major have been followed, and it assumes administrative responsibility by assigning an academic advisor to monitor the student's progress and clear the student for graduation. Any changes in the curriculum must be approved by the primary faculty mentor, and the home college advisor must be informed.

## PlusOne Bachelor's/Master's Programs

Northeastern University offers a number of PlusOne bachelor's/master's degree programs that allow students to accelerate the completion of the bachelor's degree by applying graduate credits taken as an undergraduate toward both the undergraduate and graduate degrees. Generally, both degrees may be earned in one more year than is the normal time allotted for completion of the bachelor's degree. See additional information on PlusOne Bachelor's/Master's programs (http:// www.northeastern.edu/plusone).
Northeastern University School of Law also admits students from a small number of programs in the College of Social Sciences and Humanities to a $3+3$ program that allows students to count their first year of law school toward their undergraduate degree.

## Minors

Minors offer an opportunity for students to complement their major with intensive study in another area. A minor consists of a minimum of four courses defined by a department or an interdisciplinary program. In some cases, background courses are also required. Unless otherwise indicated, minors are generally open to all university students. Minors appear on the transcript only after completion of requirements has been certified and the degree has been awarded.

## 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 (http:// 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 report any changes of address within ten days in order to ensure compliance with Student and Exchange Visitor Information System (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 eighteen 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

Directory information: information that can be released to third parties without the prior consent of the student, unless the student specifically requests otherwise in accordance with the Office of the University Registrar's procedures. Although directory information may be released unless the student has notified the Office of the University Registrar otherwise, Northeastern considers each request on an individual basis.

Northeastern treats the following as directory information (the office listed has the most accurate and up-to-date information):

## Office of the University Registrar

- Student name
- Home address (city, state, country only)
- Major field of study
- College
- Class year
- Enrollment status (e.g., undergraduate or graduate, full-time or parttime)
- Dates of attendance
- Degrees, honors, and awards received
- Most recent educational agency or institution attended


## Department of Athletics

- Sports activity participation, showing weight/height of members of athletic teams


## Center for Student Involvement

- Participation in officially recognized activities


## Notification of Rights under FERPA

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, 271 Huntington Avenue, administers FERPA.

## Additional Information

Additional information can be obtained at the U.S. Department of Education's website (http://www.ed.gov/policy/gen/guid/fpco/ferpa) 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 the General Counsel, 716 Columbus Avenue.

## Student Right-to-Know Act

See online information about the Student Right-to-Know Act (http:// www.northeastern.edu/registrar/right-to-know.html).

## Leaves of Absence and University Withdrawal

## General Policy

Students who wish to take a leave of absence are encouraged to apply for the leave by submitting a petition through the myNEU web portal (http://www.myneu.neu.edu) 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 (general, medical, or emergency), 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 co-op. 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 Department of Housing and Residential Life for policy information.
- Students' enrollment status cannot include more than one academic year of consecutive nonclass enrollments.

International students must make an appointment with the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) to discuss leave of absence procedures in accordance with federal regulations.

Students returning from an approved leave of absence must submit a notification of intent to return to their college academic 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.

## Medical or Emergency Leave of Absence

Medical leave is an option available to those Northeastern students who develop a major medical condition that precludes class attendance, completion of requirements, and/or co-op. Medical leave petitions must be initiated at University Health and Counseling Services (UHCS). Students are not allowed to take courses for credit toward their degree at Northeastern while on medical leave of absence. Students can petition their college for an exception to take courses elsewhere based on extenuating circumstances.

Students who wish to reenter the university following a medical leave must contact UHCS. Reentry from a medical leave requires receipt of all documentation delivered to UHCS on or around one month prior to
the planned reentry to classes. Once all documentation is received by UHCS, it will be reviewed and the student will be notified of the decision. Students must attend classes on the Northeastern campus for the semester they wish to return from medical leave of absence.

More specific information about the reentry process, along with the application for leave, can be found at the University Health and Counseling Services website (http://www.northeastern.edu/uhcs/ access).

Emergency leaves may be granted when a student cannot continue attending class after the start of the term due to life-changing situations beyond the student's control. Students can access the application and submit their request for an Emergency Leave of Absence online by going to the myNEU web portal (http://www.myneu.neu.edu), clicking on the "Self-Service" tab, and selecting "Registrar Forms."

The university's medical leave of absence and 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 does not include housing and other fees. 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 leave. The adjustments would follow the same schedule as the official withdrawal adjustments. See the schedule for "Refunds for Complete Withdrawal from the University (p. 18)." 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. Students enrolled in the Northeastern University Student Health Plan (NUSHP) will remain enrolled in the plan for the plan year, ending August 31.

For both medical and emergency leaves:

- 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 co-op. 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 Department of Housing and Residential Life for policy information.
- Students' enrollment status cannot include more than one academic year of consecutive nonclass enrollments.


## 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 academic student services office and provide proof of deployment prior to being deployed. The proof may be faxed, mailed, or hand-carried to the college academic 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.
- Post a leave of absence for the semester to hold a place for the student when he or she returns.

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 academic student services office, which will in turn notify the registrar's office. The college academic student services office will assist the student with reentry and registration.

International students who must take a leave of absence to engage in military service in their home country must fill out a form for leave of absence with the OGS as well as with their college.

## Leave of Absence for International Students

International students should discuss maintenance of proper U.S. immigration status with an advisor at the OGS before requesting any type of leave of absence.

## University Withdrawal

Students seeking to withdraw from the university for any reason should contact the student academic 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.

Note that withdrawal from the university will impact an international student's immigration status. Thus, international students should discuss the means to maintain proper U.S. nonimmigrant status with an advisor at the OGS before requesting or after having been placed on withdrawal.

## University Academics

- NUpath (p. 34)
- University-Wide Requirements (p. 38)
- Living and Learning Communities (p. 38)
- Experiential Learning (p. 38)
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## NUpath

## Learning, Knowing, Doing, Leading

NUpath is Northeastern University's set of institution-wide general education requirements for all students in all majors. The goal of the NUpath is to develop in our students the knowledge and skills to be lifelong learners with success in many careers, to be thoughtful global citizens, and to be fulfilled human beings. It offers students the flexibility to integrate general education learning into their individual educational journeys while maintaining the rigor of high standards through defined learning outcomes, making NUpath a unique tool for personalized curricular enrichment. NUpath is competency based rather than course based. It is built around essential, broad-based knowledge and skillssuch as understanding societies and analyzing data-integrated with specific content areas and disciplines.

NUpath requirements are met throughout a student's program of study. NUpath requirements are not restricted to specific colleges or departments and can be fulfilled through major, minor, or concentration requirements as well as through general electives. NUpath is required for all freshmen who entered in fall 2016 and later. It does not apply to students already admitted with a different set of core requirements or to transfer students whose entry year was earlier than the fall of 2016.

## - Requirements (p. 34)

- Learning Goals (p. 35)
- Writing-Intensive Courses (p. 37)
- Additional Requirements for BA Students (p. 37)


## NUpath Requirements

NUpath requirements are a set of eleven competencies designed to prepare students for personal success in an ever-evolving global society regardless of their chosen field of study. NUpath requirements are as follows:

- Natural and Designed World
- Creative Expression and Innovation
- Interpreting Culture
- Formal and Quantitative Reasoning
- Societies and Institutions
- Analyzing and Using Data
- Differences and Diversity
- Ethical Reasoning
- Writing across Audiences and Genres
- Integrating Knowledge and Skills through Experience
- Demonstrating Thought and Action in a Capstone

Because NUpath is competency based rather than course based, students have many options of courses to fulfill the requirements. Students can use the Dashboard tool (http://www.neu.edu/registrar/dbugd.html) to find courses both in and beyond their major requirements that satisfy NUpath. Courses that meet major, minor, or concentration requirements can also meet NUpath requirements. There are no level restrictions or semester-hour restrictions. A single course can count for up to two of the following requirements:

- Natural and Designed World
- Creative Expression and Innovation
- Interpreting Culture
- Formal and Quantitative Reasoning
- Societies and Institutions
- Analyzing and Using Data
- Differences and Diversity
- Ethical Reasoning

The three additional requirements (writing-intensive in the major, capstone, and experiential) are not limited. So, for example, a course may have two out of the first list (such as Differences and Diversity and Societies and Institutions) and also fulfill writing-intensive in the major and capstone.

Transfer credit and placement tests can also be used to meet the NUpath attributes of the Northeastern course equivalents. Up to five of the
following eight requirements can be met by transferred or placement test credits:

- Natural and Designed World
- Creative Expression and Innovation
- Interpreting Culture
- Formal and Quantitative Reasoning
- Societies and Institutions
- Analyzing and Using Data
- Differences and Diversity
- Ethical Reasoning

Transfer credits cannot be used to fulfill the capstone or experiential requirements. Of the writing requirements (p. 37), only the first-year writing requirement can be met by transferred or placement test credits.

## NUpath Learning Goals

Established and assessed learning goals ensure rigorous opportunities for students to achieve the essential skills and competencies of NUpath regardless of the context or course within which the learning occurs. Any course that meets a NUpath requirement incorporates the learning goals of that requirement. The requirement short name and/or user code is what will appear in course descriptions and student audits.

## Engaging with the Natural and Designed World

Short Name: Natural and Designed World
User Code: ND
Students study and practice scientific investigation and/or engineering design in order to understand the natural world and to effect changes in it to meet human and societal needs and wants. They learn critical thinking and analytical problem solving; the biological, chemical, and/or physical principles that govern the natural world; and the efforts that underlie the origins, development, acceptance, and applications of those principles.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Formulate a question that can be answered through investigation or a challenge that can be addressed through research or design.
2. Develop and use models based on evidence to predict and show relationships among variables between systems or components of systems in the natural and/or designed world.
3. Use and question scientific principles and practices to evaluate issues raised by the interplay of science, technology, and society.

## Exploring Creative Expression and Innovation

## Short Name: Creative Expression/Innovation User Code: EI

Students study and practice creative expression and innovation. They learn about traditions of creative expression and innovation in any of a number of modes (texts, image, sounds, design, etc.) and products (poems, paintings, prototypes, business plans, games, apps, medical devices and procedures, etc.) and develop their own creative processes
and products as a means of seeing and experiencing the world in new ways and communicating those experiences to others.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Describe creative processes in one or more disciplines (e.g. art, business, writing, science, engineering).
2. Generate an artifact (e.g., design, poem/essay, application, visualization, musical composition, product, prototype) through a creative process.
3. Evaluate experimentation, failure, and revision in the creation of innovative projects.

## Interpreting Culture

## Short Name: Interpreting Culture

User Code: IC
Students study and analyze cultural practices, artifacts, and texts (e.g., visual art, literature, theatrical performances, musical compositions, architectural structures). They learn critical reading and observation strategies and how traditions of theoretical, aesthetic, and/or literary criticism provide different lenses for the interpretation of cultural objects and practices.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Recognize and identify a variety of cultural practices and creations, their forms of production, and development over time.
2. Acquire and assess techniques of interpretation (including critical reading and observation techniques), criticism, and analysis of cultural practices, texts, and/or artifacts.
3. Formulate arguments for and against different theories and interpretations of cultural practices, texts, and/or artifacts

## Conducting Formal and Quantitative Reasoning

Short Name: Formal/Quantitative Reasoning
User Code: FQ
Students study and practice systematic formal reasoning using either the symbolic languages of mathematics and logic or the combinations of text and symbols characteristic of computer software. They learn when and how to apply formal reasoning to particular problems and subject matters.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Recognize when examination of a phenomenon or situation can benefit from problem-solving techniques and analyses that use formal reasoning.
2. Use their expertise in some applications of formal reasoning and know when to call upon domain experts when a problem is beyond their personal expertise.
3. Generate artifacts that require formal reasoning and planning. These artifacts might include logical proofs, mathematical computations, software, simulations, problem solutions, or plans/analyses in a variety of disciplines that require a formal, systematic component.

## Understanding Societies and Institutions

## Short Name: Societies and Institutions

## User Code: SI

Students study and practice social science, historical, and/or literary methods of inquiry and theories in order to understand human behavior and cultural, social, political, and economic institutions, systems, and processes. They learn theories of social behavior as they relate to phenomena such as globalization, social change, and civic sustainability.

LEARNING GOALS
By the end of the course, students should be able to:

1. Describe current theories of how social, political, or economic institutions, systems, and processes work.
2. Explain the historical and cultural contingency of many descriptions and explanations of human behavior, institutions, systems, and processes.
3. Evaluate social, political, or economic theories by applying them to local and global phenomena.

## Analyzing and Using Data

Short Name: Analyzing and Using Data

## User Code: AD

Students study and practice methods and tools of data analysis and use. Students learn about the structure and analysis of at least one type of data (e.g., numbers, texts, documents, web data, images, videos, sounds, maps) and acquire the skills to examine, evaluate, and critique such data; extract patterns; summarize features; create visualizations; and provide insight not obvious from the raw data itself. Students also learn to be sensitive to ethical concerns associated with data: security, privacy, confidentiality, and fairness.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Describe how data may be acquired, stored, transmitted, and processed.
2. Analyze at least one important type of data and summarize the results of an analysis in ways that provide insight.
3. Use mathematical methods and/or computational tools to perform analysis.
4. Evaluate and critique choices made in selection, analysis, and presentation of data.

## Engaging Differences and Diversity

## Short Name: Differences and Diversity

User Code: DD
Students study and practice methods for recognizing and understanding human diversity of various kinds in global, local, and organizational contexts. They learn theories and perspectives of human difference; civic sustainability and multiculturalism; how social arrangements shape and are shaped by difference; and the histories, cultures, and interactions of diverse groups.

LEARNING GOALS
By the end of the course, students should be able to:

1. Describe how notions of human difference have changed over time and across local and global contexts.
2. Discuss the value in recognizing, respecting, and embracing human diversity and how diversity contributes to culture and society, including civic sustainability.
3. Evaluate and compare two or more theories of human difference and approaches to cultivating and leveraging diversity.
4. Connect theories of human difference and approaches to diversity to one's own experience

## Employing Ethical Reasoning

## Short Name: Ethical Reasoning

## User Code: ER

Students study and practice methods of analyzing and evaluating the moral dimensions of situations and conduct. They learn ethical theories and frameworks; explore how conceptions of morals and ethics shape interpretation of concepts such as justice, fairness, rights and responsibilities, virtue, and the good life; and apply these to personal, professional, social, political, historical, or economic questions and situations.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Describe the moral and ethical elements of an issue, problem, or situation.
2. Explain at least two key ethical theories.
3. Apply ethical theories to moral dilemmas and personal positions.

## Writing Across Audiences and Genres

Short Name: Writing Across Audiences/Genres
Note: This requirement is met by four courses. See more details under Writing-Intensive Courses (p. 37).

Students study and practice writing for multiple public, academic, and professional audiences and contexts. They learn to use writing strategies, conventions, genres, technologies, and modalities (e.g., text, sounds, image, video) to communicate effectively.

## LEARNING GOALS

By the end of the course, students should be able to:

1. Adapt writing for multiple academic, professional, and public occasions and audiences.
2. Develop facility with genres of their chosen academic field and profession.
3. Identify credible, relevant sources and engage meaningfully with them in their writing.
4. Demonstrate control of writing conventions, including citation standards and mechanics.

## Integrating Knowledge and Skills Through Experience

## Short Name: Integration of Experience <br> User Code: EX

Students study and practice the principles and strategies of experiential learning. Through direct experience and reflection on that experience, they learn to recognize and articulate their knowledge and skills, to apply the knowledge and skills they learn in one context to another context, and to determine what knowledge and skills they need to develop to meet their goals.

Learning Goals: By the end of the course, students should be able to:

1. Apply knowledge and skills in new, authentic contexts.
2. Gain new knowledge and develop new skills to successfully engage in unfamiliar tasks and activities.
3. Integrate and use the deepened knowledge and skills as well as the newly gained knowledge and skills to continue to learn in their academic programs.
4. Articulate how and what one learns across a range of contexts.

## Demonstrating Thought and Action in a Capstone

Short Name: Capstone Experience
User Code: CE
Each student must take at least one course designated as a capstone experience. Capstone courses may be designed for a specific degree program, for a department, or for a college. The learning goals for a capstone will be developed by the unit that is designing the capstone. Students must complete a capstone in their major. In cases where a student has multiple majors (such as in a combined or double major), the units may specify in which major to take the capstone or may leave the choice to the student.

## Writing-Intensive Courses

The faculty expects all students to become effective writers and achieve the learning goals of the "Writing across Audiences and Genres" NUpath attributes. 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 in one of the following ways:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | :---: |
| ENGW 1110 <br> and ENGW 1111 | Introductory First-Year Writing <br> and First-Year Writing | 8 |
| ENGW 1102 | First-Year Writing for Multilingual <br> Writers | 4 |
| ENGW 1101  <br> and ENGW 1102 Introductory Writing-SOL (Speakers of <br> Other Languages) <br> and First-Year Writing for Multilingual <br> Writers | 8 |  |

Depending on performance in Introductory First-Year Writing (ENGW 1110) or Introductory Writing-SOL (Speakers of Other Languages) (ENGW 1101), 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 firstyear writing requirement.

The First-Year Writing Program conducts a version of "guided self-placement" and requires students bring an essay to the first class meeting; see the course placement webpage (http://
www.northeastern.edu/writing/first-year-writing/course-placement) for details.

For more information about the Writing Program, visit the Writing Program webpage (http://www.northeastern.edu/writing).

Note: Introductory Writing-SOL (Speakers of Other Languages) (ENGW 1101) and Introductory First-Year Writing (ENGW 1110) are not credited toward graduation in the College of Engineering.

## Advanced Writing Requirement

Advanced Writing in the Disciplines (AWD) is the second course of the university-wide requirement. Students are eligible to enroll in AWD once they satisfy the first-year requirement, earn a minimum of 64 semester hours of academic credit (this number includes the semester in which students enroll in AWD), and have at least junior or senior standing. Students are encouraged to take AWD before they have accrued 96 semester hours. A variety of AWD sections are offered, including Advanced Writing in the Technical Professions, Advanced Writing in the Sciences, and Advanced Writing in the Health Professions, among others. A small number of online sections and sections for nonnative speakers of English are also offered. Students should consult with their advisors to choose the section that best suits their needs. Transfer credit cannot be used to satisfy this requirement. Students must earn a C or better to satisfy the advanced writing requirement.

For more information about the Writing Program, visit the Writing Program webpage (http://www.northeastern.edu/writing).

## 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.

## Additional Requirements for BA Students

In addition to successfully completing the university requirements of NUpath (p. 34), students pursuing a Bachelor of Arts (BA) degree must fulfill the BA core requirements as outlined below.

## Language Requirement for BA Students

Each BA student must complete the language requirement by demonstrating proficiency at the elementary level and satisfying an intermediate-level requirement as described below.

## ELEMENTARY-LEVEL PROFICIENCY

Satisfy one of the following requirements:

1. 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).
2. 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 languagespecific interview administered by the World Languages Center upon matriculation.
3. 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 REQUIREMENT

Satisfy one of the following requirements:

1. Complete a course at the intermediate level (course number 2101 or higher) in the language taken at the elementary level.
2. Complete a course in which the subject matter focuses 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, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "SelfService" tab, then on "My Degree Audit."
3. 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 one of the following:
a. Advanced placement
b. Standardized placement exam as outlined above

## University-Wide Requirements

Note: Individual program requirements may exceed the following minima.
Minimum 128 total semester hours required
Minimum 2.000 GPA required
Students must earn a minimum of 64 Northeastern University semester hours in order to receive a bachelor's degree.

## Living and Learning Communities

All first-year students are required to live on campus. The First Year Experience (FYE) program has been developed to help Northeastern University's first-year students transition into this new and exciting chapter of their lives-college life. The Department of Residential Life is dedicated to working with Northeastern students to help them build strong community living environments that support personal development and academic success. These environments provide opportunities to learn outside of the classroom through the Living Learning Community program.

The foundation for the FYE program is held by four pillars: personal development, academic success, experiential learning, and community development. These pillars are the guiding principles of the programs and resources specific to the needs of first-year students. The goal is to help students navigate the university and familiarize them in their first year living away from home and with life in a new environment.

## Experiential Learning

Website (http://www.northeastern.edu/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 NUpath. However, students have many additional opportunities for further experiential learning.

Integration of course work and experiential learning occurs throughout the major curriculum as well as in the required capstone course.

## Cooperative Education

Website (http://www.northeastern.edu/coop)
Cooperative education (co-op) is the cornerstone of Northeastern University's experiential learning approach, in which on-campus study is enhanced by real-world experience at locations all over the world. Through co-op, students alternate periods of academic courses with periods of employment in positions related to their academic or career interests. This combination provides an integrated learning experience that enhances both in-class studies and career development.

Northeastern's cooperative education is a full-time employment experience outside the classroom supporting the concept of experiential learning. Students use the full-time experience to reflect on areas of study and academic interest. Cooperative education experiences are recalled throughout the student's academic career in classes and capstone papers. Students on co-op are required to maintain the same health insurance coverage (either through a private provider or through the university program) as they would while attending classes. In addition, those who wish to do so may live on campus while on co-op. International students must obtain proper authorization from the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) before engaging in or extending any period of co-op.

## Co-op Scheduling Options

Northeastern provides the flexibility to pursue co-op and other experiential opportunities in a way that fits individual educational goals. Full-time undergraduates may complete up to three six-month co-ops in five years and as many as two six-month co-ops in four years at Northeastern. The design of some programs, such as pharmacy and theatre, requires four-month co-ops.

All co-op patterns share four semesters when students attend classes on a full-time basis: fall and spring terms of the first year, fall term of the second year, and final term of the senior year. In the first three terms, students have an opportunity to develop academic expertise as well as professional development skills. In the last term, students have an opportunity to integrate their in-class and experiential activities in a capstone course. Generally, half of the required course credit will be completed in these four terms.

The remaining half of the required course credit may be arranged in a variety of schedules that incorporate six-month co-op periods and fulltime classes in full semesters and summer half semesters. Students may also elect to take courses (on-campus or online) during co-op periods or to complete extra course credit in some terms. Advisors assist students in developing plans of study that best fit the students' experiential learning goals and the requirements of majors/minors.

Some sample schedules for the class entering in fall semester 2016 are shown below. Note that there are multiple possible schedules and
not all entering students will follow these particular examples. In all cases, however, the students will attend class on a full-time basis in fall semester 2016, spring semester 2017, fall semester 2017, and the final spring semester, either 2020 or 2021 in the schedules shown below.

## Sample schedule-five-year, three-co-op program:

- Co-op in July-December of 2018, 2019, and 2020
- Full-time classes in spring semester of 2018, 2019, and 2020
- Full-time classes in summer 1 half semester of 2018 and 2019


## Sample schedule-four-year, two-co-op program:

- Co-op in July-December of 2018 and 2019
- Full-time classes in spring semester of 2018 and 2019
- Full-time classes in summer 1 half semester of years 2018 and 2019
- 16 credits distributed among courses taken on co-op (on campus or online), heavier course loads in full-time terms, courses in summer 2017 and/or AP credit


## Sample schedule-four-year, one-co-op program:

- Co-op in July-December of 2019
- Full-time classes in fall semester of 2018 and spring semester of 2019 and 2020
- Full-time classes in summer 1 half semester of years 2018 and 2019

For better financial planning, students and parents should be aware that:

1. Tuition is charged when a student is taking classes/earning academic credit. No tuition is charged while a student is on co-op only (although the student will pay room and board if he or she stays in the dorm while on co-op and will be assessed tuition if enrolled in a class).
2. Financial aid will be distributed to match the student's academic program and tuition bills.

## Co-op Eligibility

Every student must meet specific eligibility requirements 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 major-specific logistics, deadlines, and required paperwork. In accordance with U.S. federal regulations, international students must not begin, extend, or resume any co-op experience without first receiving employment authorization from the OGS.

## GENERAL REQUIREMENTS

Students must:

- Take and pass a preparatory course before starting co-op.
- Satisfactorily complete the requirements and deadlines set by their specific co-op program.
- Register for co-op, either through their pattern of attendance or through a change in pattern of attendance, 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 or I) 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.
- Participate in Title IX training, as required.


## 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 grade-point average to be eligible to go on domestic co-op or an 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 starting 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 students do 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.

## 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 (http://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, see the Cooperative Education Student Handbook.

## Research and Creative Activity

## Website (http://www.northeastern.edu/research)

Pursuing research at the university level makes our students knowledge creators and develops their teamwork skills. 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
- Junior/senior honors research projects

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

## Service-Learning

Website (http://www.northeastern.edu/servicelearning)
Community service is an integral part of Northeastern's 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 professors and/or program directors, 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 disciplines, and a greater sense of civic responsibility.

## Global Experience

Website (http://www.northeastern.edu/studyabroad)

## TBA

Director
Global Experience Office
403 Richards Hall
617.373.5276
617.373 .5702 (fax)
geo@northeastern.edu
Northeastern University strongly endorses global experience as an important dimension of learning. To foster this, it maintains a Global Experience Office that has developed a series of programs tailored to the interests and needs of Northeastern University students.

## International Study

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 a program, grades are calculated in the student's grade-point average (GPA). The requirements for participation are at least two completed terms at Northeastern, one of which may be a summer term; a GPA of at least 2.500; and no registration-blocking holds. Students must also meet the requirements of the host institution abroad. Application deadlines are posted on the

Global Experience Office (GEO) website (http://www.northeastern.edu/ studyabroad).

Students who wish to study abroad should start by researching program opportunities at the GEO website (http://www.northeastern.edu/ studyabroad) or by making an appointment with a study-abroad advisor. After choosing a program, students should also consult with their departmental or college advisors. Information sessions are offered regularly by GEO, and a schedule of these sessions is available on the GEO website (http://www.northeastern.edu/studyabroad). Advisors in GEO provide the final planning assistance. Schedules for walk-in hours for advising are posted online and in the GEO office. International students should also consult with the Office of Global Services (OGS) (http://www.northeastern.edu/ogs) to determine if an updated I-20 for reentry may be needed. Note that study abroad in a student's final semester may result in a delay in graduation due to calendar discrepancies across institutions.

## Types of Programs

Northeastern University offers four types of study-abroad programs, although not all types are appropriate for some majors:

1. Semester. 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, U.K.; London School of Economics in England, U.K.; and Meiji University in Tokyo, Japan.
2. Faculty-Led Summer Programs/Dialogue of Civilizations Programs. Open to Northeastern University students of any major, the Dialogue of Civilizations Programs are faculty-led study-abroad programs that include "global student exchanges" between students at Northeastern University and students around the world. The goals of each program are to connect Northeastern students with their peers in different national, cultural, political, and social environments and to provide Northeastern students with a global experience that builds upon and enhances their academic studies and training in Boston.
3. Internship. These programs offer a combination of classes and related work experience for which students earn academic credit. For example, students have interned with a member of the Australian Parliament in Canberra, the European Parliament in Brussels, the British Parliament in London, and the Irish Parliament in Dublin.
4. International Research. The focus of a student's time abroad is on an independent research project. In most cases, the study-abroad 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.

Visit the GEO website (http://www.northeastern.edu/studyabroad) to see a complete list of program options.

## International Co-op

The International Cooperative Education Program, administered through the Cooperative Education Office, provides students with opportunities to explore global career options, develop intercultural and political sensitivity, and utilize and strengthen foreign language skills. Northeastern students co-op on all seven 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 a co-op counselor to develop their own. All majors
are welcome to apply. International students participating in co-op abroad should consult with the OGS in advance of departure to ensure reentry to the United States in proper nonimmigrant visa status. The Presidential Global Scholars Program (http://www.northeastern.edu/ globalscholars) provides financial support for international co-op.

## World Languages Center

Dennis R. Cokely, PhD
Director
225B Renaissance Park
617.373.3064
617.373 .3065 (fax)

Dennis R. Cokely, Director, d.cokely@northeastern.edu
The primary goal of the World Languages Center (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 and up to three years of instruction (six semesters) in many of the languages offered.

## 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 website. Students with prior experience in any other language must contact the WLC to make an appointment for a placement assessment interview. Results of a student's online placement or interview assessments are valid for one year only.

Any student with prior experience in a language who registers for a language course without taking the WLC online placement test or a WLC placement assessment will not receive a letter grade for the 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, including a negative impact on a student's final grade. Classes missed as a result of registering late for a class will count as unexcused absences; if students believe they have been inappropriately placed in a language class, they should contact 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.

## 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 facultyled study trip. Typically, these classes are offered during summer 1 and summer 2 terms. These courses will count toward fulfillment of the $B A$ language requirement, assuming a student receives a grade of $C$ or better.

## Study-Away/Abroad Classes

The WLC will authenticate credit-bearing language classes taken in studyaway/abroad programs at accredited institutions in fulfillment of and as equivalent to WLC language classes numbered 1101, 1102, 2101, or 2102. Students must 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 granted only for successful completion of the course.

## BSIB Language Classes

The Bachelor of Science in International Business program is offered through the D'Amore-McKim School of Business. 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 Scholars Program

Jonna lacono, PhD
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universityscholars@northeastern.edu
Launched in fall 2012, the Northeastern University Scholars Program is a full-tuition scholarship program offered to a limited number of students. Individuals invited to join this program have distinguished themselves academically; displayed an entrepreneurial approach to study, achievement, involvement, and life; and have demonstrated curiosity and creativity that extend far beyond the classroom to impact the world around them. The program is intended to meet the interests of students who demand to be challenged, are passionate about learning, and will innovate when given the freedom to explore.

## University Honors Program

## Laurie Kramer, PhD

Director
150 Richards Hall
617.373.2333
617.373 .5300 (fax)
honors@northeastern.edu
Exceptionally motivated students who are seeking an opportunity to enhance their educational experience may be invited to join the University Honors Program. The honors community is an active group of intellectually engaged students who are committed to making a difference at home and in the world. They benefit from unique and challenging academic opportunities, personalized advising, stimulating events, and participation in the honors living and learning communities. Only the most highly accomplished and motivated applicants to Northeastern are invited into the University Honors Program.

## Northeastern Explore Program

Website (http://www.northeastern.edu/undeclared)

## Kim Irmiter, MA

Director
1 Meserve Hall

### 617.373.2306

The Northeastern Explore Program welcomes entering students who would like to explore their academic interests before choosing a major and introduces them to the university's broad range of disciplines. Working closely with a combination of faculty, academic advisors, and undergraduate peer mentors, undeclared students at Northeastern are engaged in personal and meaningful discovery. They are not just seeking a major, they look for clues to the future and find answers to the question: "How will I make my impact?"

Undeclared students enroll in a small-cohort freshman seminar taught by a Northeastern academic advisor and two student leaders. In this seminar, students develop strategic exploration plans to ensure they are able to take full advantage of the vast array of academic and experiential opportunities offered at Northeastern. Students will also attend exploratory programs where they engage with faculty and students in majors to gain an informed understanding of the disciplines that interest them most.

Students may declare a major at any time but are expected to do so by the end of sophomore year. Admission to a particular major is dependent on satisfying the criteria described under "Changing Majors (p. 29)."

## Premedical and Other Preprofessional Health Career <br> Preparation

Website (http://www.northeastern.edu/prehealth)

## Prehealth Studies

Because medical schools place a priority on well-rounded achievement, the prehealth course requirements can be integrated into any major at Northeastern. Medical school admission committees generally give no preference to any particular undergraduate major. As such, students should focus on meeting the course requirements of their chosen field of study, together with the prehealth professions requirements, with demonstrated academic rigor and excellence. For some majors it may be necessary to complete additional credit hours of course work, with associated tuition, to fulfill all prehealth requirements. Prehealth students should research requirements and plan a program of study as early as possible in consultation with both major and prehealth advisors to ensure that requirements will be completed in a timely fashion.

The PreHealth Advising Program provides support for Northeastern students who are planning to pursue doctoral-level training in medicine, including allopathic medicine (MD), dentistry, optometry, osteopathic medicine, podiatric medicine, and veterinary medicine.

## Prerequisite Courses

Most health professional schools require a common set of courses. The following program meets the minimum requirements of most health professional programs. Students should work with prehealth advisors to review their course selections.

Note: Corequisite laboratories are required for most science courses.

## BIOLOGY

Introductory biology (typically two semesters)
The following course work is required or recommended by many programs and necessary for MCAT preparation:

- Genetics and molecular biology
- Biochemistry

Additional biology courses are required or recommended by many programs and may be helpful for admission exam preparation.

## CHEMISTRY

- General chemistry
- Organic chemistry


## PHYSICS

Two semesters

## MATHEMATICS

Two semesters of calculus and/or statistics
ENGLISH
Two semesters
Some programs require both writing and literature courses.

## BEHAVIORAL SCIENCES

The following course work is required or recommended by many programs and necessary for MCAT preparation:

One semester each of psychology and sociology
Additional courses may be required or recommended by individual schools or programs. Students should refer to school websites as well as the appropriate official admission guidebooks for up-to-date information:

- ADEA Official Guide to Dental Schools (http://www.adea.org)
- College Information Book (http://www.aacom.org)
- Colleges of Podiatric Medicine Admissions Requirements (http:// www.aacpm.org)
- Medical School Admissions Requirements (http://www.aamc.org)
- Schools and Colleges of Optometry Admissions Requirements (http://www.opted.org)
- Veterinary Medical School Admissions Requirements (http:// www.aavmc.org)


## Prelaw Preparation

Website (http://www.northeastern.edu/prelaw)
Northeastern University adopts in full the statement of the American Bar Association on the "Preparing for Law School (http://www.abanet.org/ legaled/prelaw/prep.html)" page of its website. Most law school admission committees give no preference to any particular undergraduate major.

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 Northeastern students, the Prelaw Program provides academic advising that guides 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 skills 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.

## Education

Website (http://www.cps.neu.edu/discover/schools-institutes/school-ofeducation.php)

## Mya Mangawang, PhD

Associate Dean, Academic and Faculty Affairs,
Graduate School of Education
20 Belvidere
617.373.4216
617.373 .6600 (fax)

Mya Mangawang, Associate Dean, m.mangawang@northeastern.edu
Northeastern University's Department of Education offers a Master of Arts in Teaching (MAT) PlusOne program. The program provides a pathway for undergraduate students in the College of Arts, Media and Design; College of Science; and College of Social Sciences and Humanities who aspire to be elementary or secondary classroom teachers.

## Programs <br> Dual Degree

- MAT PlusOne Program (p. 43)


## Teaching, MAT PlusOne Program

The Master of Arts in Teaching (MAT) PlusOne program provides a pathway for undergraduate students in the College of Arts, Media and Design; College of Science; and College of Social Sciences and Humanities who aspire to be elementary (1-6) or secondary (8-12) classroom teachers. Undergraduates in majors that align with approved areas of educator licensure can complete their bachelor's degree in four years and earn a Master of Arts in Teaching in just one additional year. In consultation with their advisor, undergraduates may complete up to 12 semester hours of MAT course work and apply these credits toward their bachelor's degree. This partnership between the colleges and the Graduate School of Education leads to initial licensure, as approved by the Massachusetts Department of Elementary and Secondary Education (DESE).

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## Requirements

Complete all education courses with a cumulative GPA of 3.000.
EDUC 1111 Education in the Community
EDUC 1111 should be taken no later than the first semester of the third year

| EDUC 5503 | Culture, Equity, Power, and Influence | 4 |
| :--- | :--- | :---: |
| EDUC 5504 | Child and Adolescent Development, <br> Learning, and Teaching | 4 |
| EDUC 5570 | Inclusion, Equity, and Diversity | 4 |

A required education or education-related co-op

Army, Air Force, and Navy Reserve Officers' Training Corps
(ROTC) Programs

## Army ROTC Program

Lieutenant Colonel Timothy J. Ferguson, MS

Professor and Chair, Department of Military Science
335A Huntington Avenue
617.373.2375
617.373 .8677 (fax)

Army ROTC website (http://www.rotc.neu.edu)
Sheila Hutchins, ROTC Staff Assistant, s.hutchins@northeastern.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.

The Army ROTC program is conducted at Northeastern University. For more information, write:

Department of Military Science
Northeastern University
335A Huntington Avenue
Boston, MA 02115
or call 617.373.2375
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 (junior and 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 (advanced course and/or 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, three-year, or two-year benefit packages.

## 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 decisionmaking 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 up to $\$ 400$. Room and board are not included in the scholarship. 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 the recruiting officer at 617.358.3470 or navyrotc@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 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 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-year scholarships. The scholarships range from full tuition, $\$ 18,000$ 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. Apply at the Air Force ROTC website (http://www.AFROTC.com).

Freshmen and sophomores already in college can compete for three or three-and-a-half-year scholarships, some of which cover full tuition, while others cover $\$ 18,000$ per academic year. All scholarship winners will receive a monthly stipend, a book allowance, and uniforms.

However, students do not need a scholarship to commission through Air Force ROTC. For more information, call 617.353.6316 or 617.353.4705.

## General Studies Program

Website (http://www.northeastern.edu/gsp)

## Lynn Dornink, MA

Director
1 Meserve Hall
617.373.2306

The General Studies Program (GSP) is a full-year program for entering freshmen, offering a unique learning environment where faculty, advisors, and peer leaders provide guidance and support to ensure the students' academic success. The GSP curriculum satisfies first-year academic requirements and is geared to students' academic and career goals. Program benefits include a low student-advisor ratio, fall and spring critical-thinking seminars taught by the student's GSP advisor, a learning
community organizational model, a writing-intensive curriculum, and access to a nationally certified peer tutoring program. All majors have defined entrance requirements; therefore, beginning in September, GSP advisors work closely with students to guide them toward their intended majors' requirements. Following the successful completion of the General Studies year, and the meeting of the major requirements, students enter one of the university's seven undergraduate colleges with sophomore status in a specified major. Students may also choose to enter the Program for Undeclared Students with sophomore status. GSP students who have not met the academic progression standards for transitioning by the end of two semesters may continue in the GSP for an additional semester.

## Academic Progression Standards

GSP students must meet the following criteria to successfully transition to sophomore standing:

1. 2.000 GPA (individual program entrance requirements vary)
2. 28 semester hours of credit ( 32 recommended)
3. Successful completion of college/major transition requirements

For more details about transitioning to individual colleges, see below.

## Transitioning to Major

For information about transitioning to majors across the university, see "Changing Majors (p. 29)."

## Academic Probation

Same as university standards.

## University Withdrawal, Low Scholastic Performance

Same as university standards.

## About Sample Curricula

The university's official repository of curricular information is this undergraduate catalog in conjunction with the Degree Audit Reporting System. In case of discrepancy, the Degree Audit Reporting System shall take precedence. All curricula are approved through the university undergraduate curriculum committee. Undergraduate students should consult with their academic advising office to make certain they have all the necessary resources before planning a curriculum.

## Undergraduate Degrees

Listed below are the degrees conferred by the undergraduate full-time day colleges at Northeastern University.

## College of Arts, Media and Design

- Bachelor of Arts
- Bachelor of Fine Arts
- Bachelor of Landscape Architecture
- Bachelor of Science


## D'Amore-McKim School of Business

- Bachelor of Science in Business Administration
- Bachelor of Science in International Business
- Bachelor of Science (combined majors only)


## College of Computer and Information Science

- Bachelor of Arts in Computer Science
- Bachelor of Science in Computer Science
- Bachelor of Science in Data Science
- Bachelor of Science in Information Science
- Bachelor of Science (combined majors only)


## College of Engineering

- Bachelor of Science in Bioengineering
- 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


## 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 Science

- Bachelor of Arts
- Bachelor of Science


## College of Social Sciences and Humanities

- Bachelor of Arts
- Bachelor of Science


## College of Arts, Media and Design

Website (http://www.northeastern.edu/camd)
Elizabeth Hudson, PhD, Dean
Alan J. Zaremba, PhD, Associate Dean for Undergraduate Programs Jane Amidon, MLA, Associate Dean for Graduate Programs and Research Hilary Poriss, PhD, Associate Dean for Faculty and Academic Affairs Thomas Michael, MBA, Associate Dean for Administration and Finance

Academic Advising and Cooperative Education Office
100 Meserve Hall
617.373 .5583
617.373 .8719 (fax)
camdadvising@northeastern.edu
In today's global economy, the disciplines within the College of Arts, Media and Design are powerful drivers of growth and innovation. Creative fields and evolving technology make it possible to connect people and ideas as never before, serving as strong catalysts for change and expanding the understanding of our shared humanity.

The college integrates programs of study in architecture, art and design, communication studies, game design, journalism, media and screen studies, music, and theatre with meaningful experiential learning opportunities, enabling students to explore their passions and prepare for postgraduate opportunities in their chosen fields.

The college offers Bachelor of Arts, Bachelor of Science, and Bachelor of Fine Arts degrees in a number of majors, as well as interdisciplinary programs, and emphasizes general education through the NU Core. Opportunities available to students in the College of Arts, Media and Design 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 and media organizations. The college also emphasizes experiential learning 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 learning plan in most programs. Either plan offers co-op opportunities, typically in an area related to the student's chosen academic area. Students are normally eligible to participate in co-op as early as the second semester of their sophomore year.

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

## Academic Advising

The College of Arts, Media and Design has an academic advising system that consists of academic advisors located in the Academic Advising and Cooperative Education office in 100 Meserve Hall and faculty mentors located in the college's departments and program offices. Detailed advising information is available on the college website (http://www.northeastern.edu/camd/advising). Prelaw advising (http:// www.northeastern.edu/prelaw) and premedical/predental advising (http://www.northeastern.edu/prehealth) are also available.

## Academic Progression Standards

The College of Arts, Media and Design adheres to the university's academic progression standards (p.28). Some programs have additional specific requirements in order to progress from year to year or to graduate from that program. This information can be found on each program's page.

## Graduation Clearance Process

Students in the College of Arts, Media and Design are required to meet with their assigned academic advisor in 100 Meserve Hall to determine their remaining graduation requirements. Some departments also require a meeting with a faculty mentor. The graduation clearance (http://www.northeastern.edu/camd/academics/advising/faq/ \#clearance) process should be completed in the junior year to facilitate planning of all remaining requirements.

## College Requirements

All students in the College of Arts, Media and Design must successfully complete the university requirements of NUpath (p.34). In addition, students pursuing a Bachelor of Arts degree (BA) must fulfill the BA requirements (p. 37).

## School of Architecture

Website (http://www.northeastern.edu/camd/architecture)

## Peter H. Wiederspahn, MArch

Associate Professor and Interim Director
151 Ryder Hall
617.373.4637
617.373 .7080 (fax)

Architecture@northeastern.edu
Architecture and urban landscape are the context for civic life. In an age of increasingly rapid technological and social change, these fields forge connections between our past and our future. This 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 the design, construction, and management of contemporary spaces. Because the process of design 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 and landscape architectural understanding with the larger context of contemporary cities.

The curriculum teaches students to conceptualize, synthesize, and represent complex architectural, urban, and environmental 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 environmental performance, and second, the projects explore how designed environments-from buildings to regional infrastructures-affect urban conditions. The art of building includes the study of construction and technology, as well as the cultural messages created by the expression of material, structure, and form. Environmental performance includes imagining how we can live more
sustainably by developing innovative design solutions for synthesizing natural and urban conditions. 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 and landscape architecture's fundamental aesthetic, technological, social, and political aspects.

With the effective synthesis of the art of building and environmental performance with urban issues, Northeastern's programs in architecture and urban landscape are becoming a leader in identifying opportunities for civic representation, urban development, and neighborhood design. Northeastern's students are in demand because of their combination of professional competence and fluency in urban architectural and environmental design issues. There are opportunities for interdisciplinary cooperation in urban-oriented research and creative work in areas such as the economics of urban redevelopment; the design and planning of resilient food, water, energy, transit, and industrial systems; urban public policy; and new forms of spatial and visual communication. Additionally, Northeastern's urban focus is applied globally in the semester abroad.

## 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 grade-point average (GPA ) of 2.500 is required to remain in the major. Students below this average will not be allowed to continue in the major.

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

## Preapproved Template Programs in Architecture and in Urban Landscape

The School of Architecture offers preapproved template programs in architecture and in urban landscape. Each template program may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/ major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Science (BS)

- Architecture (p. 47)
- Architectural Studies (p. 49)


## Bachelor of Landscape Architecture (BLA)

[^0]
## Minors

- Architectural History (p. 51)
- Urban Landscape Studies (p. 52)


## Architecture, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attributes ND, EI, IC, FQ, AD, and DD are met through the major course requirements. In order to graduate, the student must meet SI and ER in their electives.

## Architecture Major Requirements

## SEMESTER 1

| ARCH 1000 | Architecture at Northeastern | 1 |
| :---: | :---: | :---: |
| MATH 1241 | Calculus 1 | 4 |
| ARCH 1110 | Fundamental Architectural Representation (Studio 1) | 6 |
| ARCH 1310 and ARCH 1311 | Architecture and Global Cultures, Prehistory to 1400 and Recitation for ARCH 1310 | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| SEMESTER 2 |  |  |
| PHYS 1141 | General Physics | 4 |
| ARCH 1120 | Fundamental Architectural Design | 6 |
| ARCH 1320 and ARCH 1321 | Architecture and Global Cultures, 1400 to Present and Recitation for ARCH 1320 | 4 |
| EEAM 2000 | Professional Development for Co-op | 1 |
| Elective |  | 4 |
| SEMESTER 3 |  |  |
| ARCH 2130 | Site, Space, and Program | 6 |
| ARCH 2330 and ARCH 2331 | Architecture, Modernity, and the City, 1800 to 1910 and Recitation for ARCH 2330 | 4 |
| ARCH 2240 | Architectonic Systems | 4 |
| Elective |  | 4 |
| SEMESTER 4 |  |  |
| ARCH 2140 | Urban Institutions | 6 |
| ARCH 3450 | Advanced Architectural Communication 1 | 4 |
| ARCH 5210 and ARCH 5211 | Environmental Systems and Recitation for ARCH 5210 | 4 |
| Elective |  | 4 |
| SEMESTER 5 |  |  |


| Abroad: |  |  |
| :--- | :--- | :--- |
| ARCH 3155 | Studio Abroad | 6 |
| ARCH 3361 | Architecture and Urbanism Abroad | 4 |
| ARCH 3362 | Seminar Abroad | 4 |
| Language or cultural elective | 4 |  |


| ENGW 1111 | 4 EEAM 2000 | 1 |  |  |
| :--- | :---: | :---: | :---: | ---: |
| ARCH 1000 | 1 Elective | 4 | 0 | 0 |
|  | 19 | 19 | Hours Summer 1 | Hours Summer 2 |$\quad$ Hours


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | ARCH 3155 | 6 Vacation | Vacation |  |
|  |  | ARCH 3362 | 4 |  |  |
|  |  | ARCH 3361 | 4 |  |  |
|  |  | Language or cultural elective | 4 |  |  |
|  | 0 |  | 18 | 0 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARCH 3170 |  | ARCH 5110 | 6 Vacation | Co-op | 0 |
| ENGW 3314 | 4 | ARCH 3370 | 4 |  |  |
| ARCH 2340 <br> and <br> ARCH 2341 | 4 | ARCH 5310 | 4 |  |  |
| ARCH 2230 and ARCH 2231 | 4 | Elective | 4 |  |  |
|  | 18 |  | 18 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 ARCH 5120 | 6 |
|  | ARCH 5220 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 18 |

Total Hours: 146

## Five Years, Two Co-ops in Spring/Summer 1 <br> Division B-Last Name Begins with M-Z

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARCH 1110 | 6 ARCH 1120 | 6 Vacation | 0 Vacation | 0 |
| ARCH 1310 and ARCH 1311 | 4 ARCH 1320 and ARCH 1321 | 4 |  |  |
| MATH 1241 | 4 PHYS 1141 | 4 |  |  |
| ENGW 1111 | 4 EEAM 2000 | 1 |  |  |
| ARCH 1000 | 1 Elective | 4 |  |  |
|  | 19 | 19 | 0 | 0 |



## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| ARCH 3155 | 6 Co-op | 0 Co-op | 0 Vacation |  |
| ARCH 3362 | 4 |  |  |  |
| ARCH 3361 | 4 |  |  | 0 |
| Language <br> or cultural <br> elective | 4 |  | 0 | 0 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARCH 3170 | 6 Co-op | 0 Co-op | 0 Vacation |  |
| ARCH 2340 <br> and <br> ARCH 2341 | 4 |  |  |  |
| ARCH 2230 <br> and ARCH 2231 | 4 |  |  |  |
| ENGW 3314 | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ARCH 5110 | 6 ARCH 5120 | 6 |
| ARCH 3370 | 4 ARCH 5220 | 4 |
| ARCH 5310 | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 18 | 18 |

Total Hours: 146
1 Advanced Architectural Communication (ARCH 3450) may also be
taken in Summer 2 after your second or fourth year.

## Architectural Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath Requirements Natural and Designed World (ND), Creative Expression/Innovation (EI), Interpreting Culture (IC), Formal and Quantitative Reasoning (FQ), and Difference and Diversity (DD) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Architectural Studies Major Requirements

## Breadth Courses

Calculus

| MATH 1241 | Calculus 1 | 4 |
| :--- | :--- | :--- |
| Physics |  | 4 |
| PHYS 1141 | General Physics | 4 |

Advanced Writing in the Disciplines
ENGW 3314 Advanced Writing in the Arts, Media, 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

| Architecture Requirements |  |  |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| ARCH 1000 | Architecture at Northeastern | 1 |
| Foundation Skills |  |  |
| ARCH 1110 | Fundamental Architectural Representation | 6 |
| ARCH 1120 | Fundamental Architectural Design | 6 |
| ARCH 1310 | Architecture and Global Cultures, Prehistory to 1400 | 4 |
| ARCH 1320 | Architecture and Global Cultures, 1400 to Present | 4 |
| ARCH 1450 | Understanding Design | 4 |
| ARCH 2330 | Architecture, Modernity, and the City, 1800 to 1910 | 4 |
| ARCH 2340 | Architecture, Modernity, and the City, 1910 to 1980 | 4 |
| Co-op Preparation |  |  |
| EEAM 2000 | Professional Development for Co-op | 1 |
| Technology |  |  |
| ARCH 2260 | Introduction to Building Systems | 4 |
| Design |  |  |
| ARCH 2130 | Site, Space, and Program | 6 |
| ARCH 2170 | Urban Research Studio: Context, Sustainability, Development | 6 |
| Studio |  |  |
| $\text { ARCH } 3170$ | Architecture, Infrastructure, and the City | 6 |
| or ARCH 3155 | Studio Abroad |  |
| Architecture Electives |  |  |
| Complete two of the following: |  | 8 |
| ARCH 3361 | Architecture and Urbanism Abroad |  |
| ARCH 3362 | Seminar Abroad |  |
| ARCH 3370 | Topics in Architectural History |  |
| ARCH 3450 | Advanced Architectural Communication |  |
| ARCH 5310 | Design Tactics and Operations |  |
| Cooperative Educa |  |  |

Architectural studies majors must complete at least one co- 0 op:

COOP 3945 Co-op Work Experience

## Tracks

Complete one of the tracks listed below:

## Design and Culture Track

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| ARCH 2360 | Design Thinking and Architecture | 4 |
| ARCH 5320 | Applications of Architectural Design | 4 |

## Electives

Complete two of the following:

| ARTH 2210 | Modern Art and Design History |
| :--- | :--- |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in <br> the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| LARC 2330 | Cities, Landscape, and Modern Culture |
| LARC 2340 | Cities, Landscape, and Contemporary <br> Culture |

## Sustainability Track

Required Courses

| ARCH 2250 | Introduction to Sustainable Design in <br>  <br>  <br> Architecture | 4 |
| :--- | :--- | ---: |
| ARCH 5210 | Environmental Systems | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| LARC 2230 | Site Materials and Methods |
| :--- | :--- |
| LARC 2240 | Sustainable Site Construction and <br> Detailing |
| LARC 2340 | Cities, Landscape, and Contemporary <br> Culture |
| LARC 2440 | Planting Design |


| ARCH 5530 | Innovative Models in Real Estate <br> Development and Design | 4 |
| :--- | :--- | ---: |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ENTR 2206 |  | Global Social Enterprise |
| ENTR 2301 | Innovation! |  |
| ENTR 2303 | Entrepreneurial Marketing and Selling |  |
| ENTR 3325 | Sustainable Innovation |  |
| ENTR 3330 | Lean Design and Development for <br> Entrepreneurs |  |
| ENTR 4501 | Business Planning for Technology <br> MKTG 2209 | Introduction to Marketing |

## Architectural Studies Major Credit Requirement

Complete 78 semester hours in the major.

## Program Requirement

128 total semester hours required

## Landscape Architecture, BLA

## Major Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Natural and Designed World (ND), Creative Expression/Innovation (EI), Interpreting Culture (IC), Formal and Quantitative Reasoning (FQ), Societies and Institutions (SI), and Difference and Diversity (DD) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Landscape Architecture Major Requirements

Introduction to College

| ARCH 1000 | Architecture at Northeastern | 1 |
| :--- | :--- | :--- |
| Calculus |  |  |
| MATH 1241 | Calculus 1 | 4 |

Environmental Geology
ENVR $1112 \quad 4$
Foundation Courses

| ARCH 1110 | Fundamental Architectural 6 <br>  Representation |  |
| :--- | :--- | :--- |
| ARCH 1120 | Fundamental Architectural Design | 6 |

## History/Theory Courses

ARCH 1310 Architecture and Global Cultures,
and ARCH 1311 Prehistory to 1400
and Recitation for ARCH 1310

| ARCH 1320 and ARCH 1321 | Architecture and Global Cultures, 1400 to Present and Recitation for ARCH 1320 | 4 |
| :---: | :---: | :---: |
| ARCH 3361 | Architecture and Urbanism Abroad | 4 |
| ARCH 3362 | Seminar Abroad | 4 |
| LARC 2330 | Cities, Landscape, and Modern Culture | 4 |
| LARC 2340 | Cities, Landscape, and Contemporary Culture | 4 |
| LARC 5310 | Urban Landscape Seminar | 4 |
| Technology/Science Courses |  |  |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 | 5 |
| LARC 2230 | Site Materials and Methods | 4 |
| LARC 2430 | Plant Identification | 4 |
| LARC 2240 | Sustainable Site Construction and Detailing | 4 |
| LARC 5210 | Landscape Ecology | 4 |
| LARC 5220 | Sustainable Landscape Practices | 4 |
| LARC 5420 | Professional Practice in Landscape Architecture | 4 |
| Design |  |  |
| LARC 2130 | Sustainable Urban Site Design | 6 |
| LARC 2140 | Designed Urban Ecologies | 6 |
| LARC 2440 | Planting Design | 4 |
| LARC 3155 | Studio Abroad | 6 |
| LARC 3170 | Landscape Planning and Urbanism Studio | 6 |
| LARC 5110 | Advanced Design for Urban Environments Studio | 6 |
| LARC 5120 | Comprehensive Design Studio | 6 |


| Professional Development |  |  |
| :--- | :--- | :--- |
| EEAM 2000 | Professional Development for Co-op | 1 |

## Cooperative Education

Urban landscape majors are required to complete two six- 0
month co-ops.
COOP 3945
Co-op Work Experience

## Major GPA Requirement

Minimum 2.500 GPA required

## Major Credit Requirement

Complete 117 semester hours for the major.

## Program Requirement

146 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 |
| :--- | :---: | :---: | Hours


| ENVR 1200 | 4 ENGW 1111 | 4 |  |
| :--- | :---: | :---: | :---: |
| Elective | 4 EEAM 2000 | 1 | 0 |
|  | 19 | 19 |  |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring |  | Summer 1 | Hours |
| LARC 2130 | 6 | LARC 2140 | 6 | Vacation |  |
| LARC 2430 | 4 | LARC 2240 | 4 |  |  |
| LARC 2330 | 4 | LARC 2440 | 4 |  |  |
| LARC 2230 | 4 | LARC 2340 | 4 |  |  |
|  | 18 |  | 18 |  | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours |
| ARCH 3155 | 6 | Co-op 1 |  | Co-op 1 |  |
| ARCH 3362 | 4 |  |  |  |  |
| ARCH 3361 | 4 |  |  |  |  |
| Language or cultural elective | 4 |  |  |  |  |
|  | 18 |  | 0 |  | 0 |


| Year 4 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours |
| LARC 3170 | 6 | Co-op 2 |  | Co-op 2 |  |
| ENGW 3314 | 4 |  |  |  |  |
| LARC 5210 | 4 |  |  |  |  |
| ENVR 3300 <br> and <br> ENVR 3301 | 5 |  |  |  |  |
|  | 19 |  | 0 |  | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| LARC 5110 | 6 | LARC 5120 | 6 |  |  |
| LARC 5220 | 4 | LARC 5420 | 4 |  |  |
| LARC 5310 | 4 | Elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| 18 |  |  | 18 |  |  |

Total Hours: 147

## Architectural History, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: This minor is not available to architecture majors.

## Required Courses

| ARCH 1310 | Architecture and Global Cultures, <br> Prehistory to 1400 | 4 |
| :--- | :--- | :---: |
| ARCH 1320 | Architecture and Global Cultures, 1400 <br> to Present | 4 |
| ARCH 2330 | Architecture, Modernity, and the City, <br> 1800 to 1910 | 4 |
| ARCH 2340 | Architecture, Modernity, and the City, <br> 1910 to 1980 | 4 |

## GPA Requirement

2.000 GPA required in the minor

## Urban Landscape Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Requirements for Students Not Majoring in Architecture

Required Courses

| ARCH 1310 | Architecture and Global Cultures, Prehistory to 1400 | 4 |
| :---: | :---: | :---: |
| ARCH 1320 | Architecture and Global Cultures, 1400 to Present | 4 |
| LARC 2330 | Cities, Landscape, and Modern Culture | 4 |
| LARC 2340 | Cities, Landscape, and Contemporary Culture | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| ARCH 1450 | Understanding Design |  |
| ARCH 3364 | Architecture and Planning in Twenty-First-Century China |  |
| ENVR 1200 | Dynamic Earth |  |
| ENVR 4515 | Sustainable Development |  |
| ENVR 5210 | Environmental Planning |  |

## Requirements for Architecture Majors

Required Courses

| LARC 2330 | Cities, Landscape, and Modern Culture | 4 |
| :--- | :--- | ---: |
| LARC 2340 | Cities, Landscape, and Contemporary <br> Culture | 4 |
| LARC 5210 | Landscape Ecology | 4 |
| Electives <br> Complete two of the following, or a minimum of 8 semester <br> hours: | 8 |  |
| ENVR 1112 | Environmental Geology |  |
| ENVR 3200 | Water Resources |  |
| ENVR 3300 | Geographic Information Systems |  |
| ENVR 4515 | Sustainable Development |  |
| ENVR 5210 | Environmental Planning |  |
| CIVE 2334 | Environmental Engineering 1 |  |
| CIVE 4566 | Design for Sustainable Transportation: <br>  <br> CIVE 5270 | Enverlands |
| CIVE 5321 | Management |  |
| PHTH 5214 | Environmentection and |  |

## GPA Requirement

3.000 GPA required in the minor

## Art + Design

Website (http://www.northeastern.edu/camd/artdesign)

## Interim Chair

239 Ryder Hall
617.373.2347
617.373 .8535 (fax)

Judy Ulman, Administrative Assistant, j.ulman@northeastern.edu
Art makes life meaningful. Design makes life possible. Together they make life wonderful. The work of artists and designers informs and forms cultures, benefits society, and empowers the global marketplace of ideas. The faculty in the Department of Art + Design seeks to prepare students for a rich and rewarding life making a significant difference in the lives of others. We study the fundamentals of knowing, thinking, making, and doing; you have an opportunity to learn to use ideas and influences, tools and techniques, and principles and processes of art and design. We provide a faculty, format, and facilities for a great experiential education in art and design within a major urban research university. You pursue your curiosity about, intentions toward and obligations to the evolving world. Summer programs in Iceland, Ireland, Venice, Rome, London, Berlin, Budapest, Cuba, and Ecuador offer intensive studio experiences to augment your study with travel and creative work in the context of other cultures.

We seek to cultivate your talents as a creative source of original ideas and expressions of an inner life, using classical, current, and emerging media. You are inspired and challenged to critique and create works of art and design. You will gain visual literacy and fluency with form in the context of a liberal arts education and professional art and design practices. Understanding form is essential to understanding anything. Experimenting with form is essential to understanding form. Artists and designers experiment with form. You can be transformed into a creative force, ready to realize your potential and create cultural value and social benefit.

## Art, BA

A studio-based fine art program that offers a broad and deep exploration of what it means to be culturally aware, skilled, and productive, the BA in Art balances studio courses in drawing/painting and digital media with art history and visual studies. Students' education, experience, and training in understanding cultural practices take full advantage of the remarkable scope of the College of Arts, Media and Design. The focus of obtaining a well-rounded liberal arts education, within a broad study of the arts and humanities, is complemented by the study of a language and its cultural context and knowledge in the natural, physical, and social sciences. Some courses in this program are offered in Ireland, a cultural treasure-house amid natural splendor, where students have an intensive and immersive experience. There students make art in their own studios in an art school equipped with all the tools and resources an artist requires. Select courses at the School of the Museum of Fine Arts, Boston (SMFA), adjacent to the Northeastern campus, permit students to discover new talents and interests. Most important, ample elective choices include study-abroad programs and span the complete range of offerings of our college.

The concentration in visual studies incorporates art and design history with a cultural study of seeing. Understanding vision to be as much a product of lived culture and a phenomenon that is as dynamic, creative, and social as it is physical and biological, visual studies explores differing ways to interpret the visible world that surrounds us. Students are exposed to the history and theory of the visual arts and visual experience as they address connections between topics as wide-ranging as Leonardo da Vinci's Mona Lisa and the computer interface used in Apple's Lisa. Visual studies seeks to develop critical insight into, and understanding of, what is seen.

The BA in art is offered with the following concentration options:

- Without concentration (p. 54)
- With a concentration in visual studies (p. 56)


## Media Arts, BFA

The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of animation, game, game art, photography, and video arts are offered with variations more yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities offer the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree prepares students to meet the challenges of continuous change with adaptive ingenuity.

The BFA in media arts is offered with the following concentration options:

- Without concentration (p. 64)
- With a concentration in animation (p. 66)
- With a concentration in photography (p. 68)
- With a concentration in video arts (p. 70)


## Design, BFA

Design is the practice-based discipline raising important questions about-and providing significant answers to-how we live. Designers are needed when we don't know what is needed. Designers propose alternative futures and create new choices using design principles and processes to create, compose, and construct meaning in diverse knowledge fields. Designers seek a broad understanding of principles and systems of perception, communication, and action. Concentrations in design practices are graphic and information design, interaction design, and experience design.

Graphic design makes messages and meaning using visual form and the integration of text and image. It often has a persuasive intention and uses rules of visual composition, form, and pattern to enable storytelling or to create attention and an ambience for consideration. Information design focuses on visualizing concepts and data to enhance human understanding of complex and vital knowledge.

Interaction design focuses on the creation of navigable interfaces and systems that allow audiences to achieve meaningful goals, connecting people to people and people to information and environments.

Experience design is a holistic approach that utilizes investigation into human environments in specific situations to improve quality. Given an understanding of goals, needs, and desires, it seeks to improve the various contexts by identifying and studying events and how they can be turned into beneficial practices.

As intensive studio programs, the curricula balance theory and design history and theory with studio projects in all media. As a design analyst, inventor, interpreter, curator, and producer of information, interaction, and experience, students can integrate many facets of university and liberal arts education.

The BFA in design (p. 61) is offered with the following concentration options:

- Without concentration
- With a concentration in graphic and information design
- With a concentration in interaction design
- With a concentration in experience design


## Studio Art, BFA

The BFA in studio art (p. 72) is offered in partnership with the School of the Museum of Fine Arts, Boston (SMFA), adjacent to the Northeastern campus. In this major, the studio art classes are taken at the SMFA, which permits students to explore a wide range of artistic media including ceramics, drawing, film, glasswork, metalsmith, painting, performance, print and paper, sculpture, and sound in their extensive studio environments. Art and design history courses are taken in the department. In addition students have access to all the elective courses, co-op, study-abroad programs, technology and student resources that Northeastern students experience.

The BFA in studio art degree is awarded by Northeastern.

## Combined Majors

The Department of Art + Design also offers the following combined majors:

- Digital art and game design combined major (p. 73)
- Business administration and interactive media combined major (p. 75)
- Computer science and digital art major (p. 78)
- Computer science and design major (p. 80)


## Minors

The Department of Art + Design offers the following minors:

- Animation (p. 84)
- Art (p. 84)
- Art history (p. 85)
- Experience design (p. 85)
- Game art (p. 86)
- Graphic and information design (p. 86)
- Interaction design (p. 87)
- Photography (p. 87)
- Video arts (p. 88)


## Preapproved Template Programs

The Department of Art + Design offers preapproved template programs in the following areas:

- Experience design
- Graphic and information design
- Interaction design
- Media arts
- Visual studies

Each template program may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval Form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Admission Requirements for Art + Design

There are specific admissions criteria for students entering majors in the Department of Art + Design. See "Admission Requirements for the College of Arts, Media and Design (p. 12)."

## Academic Progression Standards

Same as college standards.

## Programs

## Bachelor of Arts (BA)

- Art (p. 54)
- Art with Concentration in Visual Studies (p. 56)
- English and Graphic and Information Design (p. 58)
- Media Arts and Communication Studies (p. 60)


## Bachelor of Fine Arts (BFA)

- Design (p. 61)
- Media Arts (p. 64)
- Media Arts with Concentration in Animation (p. 66)
- Media Arts with Concentration in Photography (p. 68)
- Media Arts with Concentration in Video Arts (p. 70)
- Studio Art (p. 72)
- Digital Art and Game Design (p. 73)


## Bachelor of Science (BS)

- Business Administration and Interactive Media (p. 75)
- Computer Science and Design (http://catalog.northeastern.edu/ undergraduate/arts-media-design/art-design/computer-science-design-bs)
- Computer Science and Digital Art (p. 78)
- Computer Science and Interactive Media (p. 80)
- Graphic and Information Design and Mathematics (p. 83)


## Minors

- Animation (p. 84)
- Art (p. 84)
- Art History (p. 85)
- Experience Design (p. 85)
- Game Art (p. 86)
- Graphic and Information Design (p. 86)
- Interaction Design (p. 87)
- Photography (p. 87)
- Video Arts (p. 88)


## Art, BA

A studio-based fine art program that offers a broad and deep exploration of what it means to be culturally aware, skilled, and productive, the BA in Art balances studio courses in drawing/painting and digital media with art history and visual studies. Students' education, experience, and training in understanding cultural practices take full advantage of the remarkable scope of the College of Arts, Media and Design. The focus of obtaining a well-rounded liberal arts education, within a broad study of the arts and humanities, is complemented by the study of a language and its cultural context and knowledge in the natural, physical, and social sciences. Some courses in this program are offered in Ireland, a cultural treasure-house amid natural splendor, where students may have an intensive and immersive experience. There students make art in their own studios in an art school equipped with all the tools and resources an artist requires. Select courses at the School of the Museum of Fine Arts, Boston (SMFA), adjacent to the Northeastern campus, permit students to discover new talents and interests. Most important, ample elective choices include study-abroad programs and span the complete range of offerings of our college.

The concentration in visual studies incorporates art and design history with a cultural study of seeing. Understanding vision to be as much a product of lived culture and a phenomenon that is as dynamic, creative, and social as it is physical and biological, visual studies explores differing ways to interpret the visible world that surrounds us. Students are exposed to the history and theory of the visual arts and visual experience as they address connections between topics as wide-ranging as Leonardo da Vinci's Mona Lisa and the computer interface used in Apple's Lisa. Visual studies seeks to develop critical insight into, and understanding of, what is seen.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), and Societies and Institutions (SI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Art and Design Core

Introduction to College
ARTF $1000 \quad$ Art and Design at Northeastern
Art and Design Fundamentals
ARTF 1122 2D Fundamentals: Surface and Drawing 5

| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| :---: | :---: | :---: |
| ARTF 2220 and ARTF 2221 | 4 D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 <br> and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Drawing Fundamentals Elective |  |  |
| ARTF 1120 or ARTF 1121 | Observational Drawing Conceptual Drawing | 4 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2211 | Contemporary Art and Design History | 4 |
| Degree Project |  |  |
| ARTS 4540 | Art Degree Project 1 | 4 |
| ARTS 4541 | Art Degree Project 2 | 4 |
| Arts, Media and Design Requirements |  |  |
| Complete four cour | s from the following lists: | 16 |
| Art + Design |  |  |
| ARTS 2330 | Sculpture Basics |  |
| ARTS 2340 | Painting Basics |  |
| ARTS 2341 | Figure Drawing |  |
| ARTS 3449 | Drawing in Mixed Media |  |
| ARTH 1100 | Interactive Media and Society |  |
| ARTH 2213 | Nineteenth-Century Art |  |
| ARTH 2214 | American Art |  |
| ARTH 4500 | Arts of the African Diaspora |  |
| ARTH 5100 | Contemporary Art Theory and Criticism |  |
| ARTH 5200 | Issues in Contemporary Art |  |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |  |
| ARTH 5400 | Contemporary Visual Culture |  |
| ARTH 5500 | Art and New Media: History and Theory |  |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| ARTD 3460 | Photography 1 |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3473 | Animation for Games |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 4565 | Photography 2 |  |
| ARTD 4570 | Animation 2 |  |
| ARTD 4575 | Animation 3 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |


| ARTD 5582 | Collaborative Video and Community Engagement |
| :---: | :---: |
| ARTD 4660 | Studio Photography |
| ARTD 4661 | Alternative Photographic Processes |
| ARTD 4682 | Video in Context: Video and Social Change |
| ARTG 1250 | Design Process Context and Systems |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3352 | Interaction Design Basics |
| ARTD 2100 | Narrative Basics |
| ARTE 2500 | Art and Design Abroad: Studio |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 3901 | Art and Design Special Topics |
| ARTE 4901 | Special Topics in Art and Design Studio |
| ARTE 4902 | Special Topics in Art and Design History |
| Architecture |  |
| ARCH 1310 and ARCH 1311 | Architecture and Global Cultures, Prehistory to 1400 and Recitation for ARCH 1310 |
| ARCH 1320 and ARCH 1321 | Architecture and Global Cultures, 1400 to Present and Recitation for ARCH 1320 |
| ARCH 1350 | American Architecture |
| ARCH 1450 | Understanding Design |
| ARCH 2330 | Architecture, Modernity, and the City, 1800 to 1910 |
| ARCH 2340 | Architecture, Modernity, and the City, 1910 to 1980 |
| Communication Studies |  |
| COMM 1101 | Introduction to Communication Studies |
| Game Design |  |
| GAME 1110 and GAME 1111 | Games and Society and Recitation for GAME 1110 |
| GAME 2200 | Games and Learning |
| Journalism |  |
| JRNL 1150 | Interpreting the Day's News |
| Media and Screen Studies |  |
| MSCR 1220 | Media, Culture, and Society |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2220 | Understanding Media and Film |
| CINE 1200 | Exploring the Humanities through Film |
| CINE 2336 | American Film and Culture |
| Music |  |
| MUSC 1101 | Introduction to Music |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1113 | Film Music |
| Theatre |  |
| THTR 1101 | Introduction to Theatre |
| THTR 1270 | Introduction to Theatrical Design |

## Major GPA Requirement

A major GPA of 2.500 is required.

## Program Requirement

133 total semester hours required

## Plan of Study

## Sample Five Years, Two Co-ops in Summer 2/Fall Sample. YA or ZA Plan of Study optional.

$\left.\begin{array}{lcccr}\text { Year 1 } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Fall } & \text { ARTF 1000 } & \begin{array}{c}\text { ARTF 1124 } \\ \text { and } \\ \text { ARTF 1125 }\end{array} & 5 \text { Vacation } & \text { 0 Vacation }\end{array}\right] 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | ARTF 2223 <br> and <br> ARTF 2224 | 5 Vacation | 0 Co-op |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | Arts, media <br> and design <br> elective | 4 Vacation | Vacation |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| ARTS 4540 | 4 ARTS 4541 | 4 |


| Elective | 4 Elective | 4 |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Total Hours: 135 |  |  |

Total Hours: 135

Art with Concentration in Visual Studies, BA

A studio-based fine art program that offers a broad and deep exploration of what it means to be culturally aware, skilled, and productive, the BA in Art balances studio courses in drawing/painting and digital media with art history and visual studies. Students' education, experience, and training in understanding cultural practices take full advantage of the remarkable scope of the College of Arts, Media and Design. The focus of obtaining a well-rounded liberal arts education, within a broad study of the arts and humanities, is complemented by the study of a language and its cultural context and knowledge in the natural, physical, and social sciences. Some courses in this program are offered in Ireland, a cultural treasure-house amid natural splendor, where students may have an intensive and immersive experience. There students make art in their own studios in an art school equipped with all the tools and resources an artist requires. Select courses at the School of the Museum of Fine Arts, Boston (SMFA), adjacent to the Northeastern campus, permit students to discover new talents and interests. Most important, ample elective choices include study-abroad programs and span the complete range of offerings of our college.

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## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

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NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), and Societies and Institutions (SI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Art and Design Core

## Introduction to College

| ARTF 1000 | Art and Design at Northeastern | 1 |
| :---: | :---: | :---: |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Drawing Fundamentals Elective |  |  |
| ARTF 1120 or ARTF 1121 | Observational Drawing Conceptual Drawing | 4 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2211 | Contemporary Art and Design History | 4 |
| Degree Project |  |  |
| ARTS 4540 | Art Degree Project 1 | 4 |
| ARTS 4541 | Art Degree Project 2 | 4 |

## Concentration in Visual Studies

Art and Design History Electives
Courses in architectural history and media and screen studies may also be used upon approval by the chair of the Department of Art + Design.
Complete four of the following: 16

| ARTE 2501 | Art and Design Abroad: History |
| :--- | :--- |
| ARTE 4902 | Special Topics in Art and Design <br> History |
| ARTH 1100 | Interactive Media and Society |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 2215 | History of Graphic Design |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in <br> the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTH 5500 | Art and New Media: History and Theory |

## Major GPA Requirement

A major GPA of 2.500 is required.

## Program Requirement

133 total semester hours required

Plan of Study

## Sample Five Years, Two Co-ops in Summer 2/Fall Sample. YA

 or ZA Plan of Study optional.Year 1
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { ARTF 1000 } & \begin{array}{c}\text { Vacation } \\ \text { and } \\ \text { ARTF 1124 }\end{array} & 5 \text { Vacation }\end{array}\right]$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1120 or 1121 | 4 ARTF 2220 <br> and ARTF 2221 | 5 Vacation | Co-op |  |
| ARTH 2210 | 4 ARTH 2211 | 4 |  |  |
| Art + design history elective | 4 Art + design history elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| EEAM 2010 | 1 EEAM 2000 | 1 |  |  |
|  | 17 | 18 | 0 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | ARTF 2223 <br> and <br> ARTF 2224 | 5 Vacation | Co-op |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 17 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | Art + design <br> history <br> elective | 4 Vacation | Vacation |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  | 0 |  |
|  | Elective | 4 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| ARTS 4540 | 4 ARTS 4541 | 4 |
| Elective | 4Art + design <br> history <br> elective | 4 |
|  | 4 Elective | 4 |


| Elective | 4 Elective | 4 |
| :--- | :---: | ---: |
|  | 16 | 16 |

Total Hours: 135

## English and Graphic and Information Design, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).


ENGL 2240 Seventeenth-Century British Literature
ENGL 2250 Eighteenth-Century British Literature
ENGL 2295 Revolution and Revolt in Early American Literature

ENGL 2296 Early African-American Literature
ENGL 3151 Topics in Early Literatures Abroad
ENGL 3607 Chaucer
ENGL 3618 Milton
ENGL/JWSS 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity

ENGL $4020 \quad$ Topics in 17th- and 18th-Century Literatures

## Nineteenth-Century Literature

Complete one of the following: 4

| ENGL 2260 | Romantic Poetry |
| :--- | :--- |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |

Twentieth- and Twenty-First-Century Literature

| Complete one of the following: |  |
| :--- | :--- |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL/JWSS 2610 Contemporary Israeli Literature and Art |  |
| ENGL/JWSS 3685 From Kafka to Kushner: Modern and |  |
| ENGL 3730 | Contemporary Jewish Literature |
| Twentieth- and Twenty-First-Century |  |
| Major Figure |  |

Theories and Methods
Complete one of the following: 4

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |
| ENGL 4400 | Opening the Archive |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and <br> Linguistics |


| LING 2350 | Linguistic Analysis |  |
| :---: | :---: | :---: |
| LING 3450 | Syntax |  |
| LING 3452 | Semantics |  |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |
| Comparative Literature |  |  |
| Complete one of th | following: | 4 |
| ENGL 1120 | Trouble in Utopia |  |
| ENGL 1130 | Animals, Objects, Humans |  |
| ENGL 1450 | Reading and Writing in the Digital Age |  |
| ENGL 1500 | British Literature to 1800 |  |
| ENGL 1501 | British Literature 1800 to Present |  |
| ENGL 1502 | American Literature to 1865 |  |
| ENGL 1503 | American Literature 1865 to Present |  |
| ENGL 1701 | Global Literature 1500 to Present |  |
| ENGL 2370 | The Modern Short Story |  |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| Writing |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| $\begin{aligned} & \text { ENGL } 4710 \\ & \text { or ENGL } 4720 \end{aligned}$ | Capstone Seminar Capstone Project | 4 |

## Graphic and Information Design Requirements

| Code Title | Hours |
| :--- | :---: |
| Art and Design at Northeastern |  |

ARTF $1000 \quad$ Art and Design at Northeastern 1
Art and Design Fundamentals
ARTF 1122 2D Fundamentals: Surface and Drawing 5
and ARTF 1123 and 2D Tools
ARTF 2220 4D Fundamentals: Sequence and 5
and ARTF 2221 Drawing
and 4D Tools
Art and Design History

| ARTH 2210 | Modern Art and Design History | 4 |
| :--- | :--- | :--- |
| ARTH 2215 | History of Graphic Design | 4 |
| Design |  | 4 |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 2250 | Typography 1 | 5 |
| and ARTG 2251 | and Type Tools | 4 |
| ARTG 2252 | Graphic Design 1 | 4 |
| ARTG 3350 | Typography 2 | 4 |
| ARTG 3451 | Information Design 1 | 4 |

Degree Project
ARTG 4550 Design Degree Project 1 4

Art and Design Electives
Complete one of the following: 4-5

| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |
| :---: | :---: |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |
| ARTG 2260 | Programming Basics |
| ARTF 1120 | Observational Drawing |
| ARTF 1121 | Conceptual Drawing |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools |
| ARTG 3351 | Time-Based Design |
| ARTG 3352 | Interaction Design Basics |
| ARTG 3450 | Graphic Design 2 |
| ARTG 3460 | Identity and Brand Design |
| ARTG 3461 | Service Design |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTG 4551 | Design Degree Project 2 |
| ARTG 4552 | Information Design 2 |
| ARTG 4553 | Environmental Design |
| ARTG 4554 | Typography 3 |

## Integrative Requirement

Code Title

Hours
Integrative English Course
ENGL 3340 Technologies of Text 4

## Program Requirement

128 total semester hours required

## Media Arts and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media Arts Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Art and Design at Northeastern |  |  |
| ARTF 1000 | Art and Design at Northeastern | 1 |


| Art and Design Foundations |  |
| :--- | :--- |
| ARTF 1122 2D Fundamentals: Surface and Drawing <br> and ARTF 1123 and 2D Tools <br> ARTF 2220 4D Fundamentals: Sequence and <br> and ARTF 2221 Drawing <br> and 4D Tools <br> Drawing Fundamentals  |  |


| ARTF 1120 | Observational Drawing |
| :---: | :--- |
| or ARTF 1121 | Conceptual Drawing |


| Art and Design History |  |  |
| :--- | :--- | :--- |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2212 | Survey of the Still and Moving Image | 4 |


| Project Required Course |  |
| :--- | :--- |
| ARTD 4530 | Media Arts Degree Project 1 |


| Media Art Basics Electives |
| :--- |
| Complete two of the following: |


| ARTD 2370 | Animation Basics |
| :--- | :--- |
| and ARTD 2371 | and Animation Tools |
| ARTD 2360 | Photo Basics |
| and ARTD 2361 | and Photo Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

## Art and Design Electives <br> Complete two of the following: 8-10

| ARTF 1120 | Observational Drawing |
| :--- | :--- |
| ARTF 1121 | Conceptual Drawing |


| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |
| :---: | :---: |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |
| ARTD 2100 | Narrative Basics |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTE 2500 | Art and Design Abroad: Studio |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 4901 | Special Topics in Art and Design Studio |
| ARTE 3901 | Art and Design Special Topics |
| ARTE 4902 | Special Topics in Art and Design History |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |
| ARTD 3460 | Photography 1 |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3473 | Animation for Games |
| ARTD 3480 | Video: Sound and Image |
| ARTD 4565 | Photography 2 |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTD 4660 | Studio Photography |
| ARTD 4661 | Alternative Photographic Processes |
| ARTD 4670 | Media Arts Degree Project 2 |
| ARTS 2330 | Sculpture Basics |
| ARTS 2340 | Painting Basics |
| ARTS 2341 | Figure Drawing |
| ARTS 3449 | Drawing in Mixed Media |

## Communication Studies Courses

Code Title Hours

Communication Studies Common Requirements
COMM 1101 Introduction to Communication Studies 4


ARTF $1000 \quad$ Art and Design at Northeastern 1

| Art and Design Fundamentals |  |  |
| :--- | :--- | ---: |
| ARTF 1122 <br> and ARTF 1123 | 2D Fundamentals: Surface and Drawing <br> and 2D Tools | 5 |
| ARTF 1124 | 3D Fundamentals: Structure and <br> and ARTF 1125 <br> Drawing <br> and 3D Tools | 5 |
| ARTF 2220 | 4D Fundamentals: Sequence and <br> and ARTF 2221 | Drawing <br> and 4D Tools |
| ARTF 2223 | 5D Fundamentals: Experience and <br> and ARTF 2224 | Drawing <br> and 5D Tools |

## Art and Design History

| ARTH 1111 | Global Art and Design History: <br> Renaissance to Modern | 4 |
| :--- | :--- | :--- |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2211 | Contemporary Art and Design History | 4 |

## Design Requirements

| Design Courses <br> ARTG 1250 | Design Process Context and Systems | 4 |
| :--- | :--- | :---: |
| ARTG 2250 | Typography 1 <br> and ARTG 2251 | 5 |
| ARTG 3350 | Typography 2 | 4 |
| ARTG 3451 | Information Design 1 | 4 |
| Degree Project |  | 8 |
| Complete one of the following: | 4 |  |


| ARTG 4550 | Design Degree Project 1 <br> and ARTG 4551 <br> and Design Degree Project 2 |
| :--- | :--- |
| ARTG 4700 | Interaction Team Degree Project 1 |
| and ARTG 4701 | and Interaction Team Degree Project 2 |

## Concentrations

Complete one of the concentrations listed below:

- Graphic and Information Design (p. )
- Interaction Design (p. )
- Experience Design (p. )


## Design Electives

## Art and Design Elective

Note: Courses in this section cannot also count in the "Design
History Elective" section below.
Complete one of the following:

| ARTF 1120 | Observational Drawing |
| :--- | :--- |
| ARTF 1121 | Conceptual Drawing |
| ARTH 1100 | Interactive Media and Society |
| ARTD 2100 | Narrative Basics |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTE 4901 | Special Topics in Art and Design Studio |


| Design History Elective |  |
| :--- | :--- |
| ARTH 1100 | Interactive Media and Society |

or ARTH 2215 History of Graphic Design

## Media Arts Basics Elective

Complete one of the following:

| ARTD 2360 | Photo Basics |
| :--- | :--- |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

## Program Requirements

135 total semester hours required

## Concentrations

CONCENTRATION IN GRAPHIC AND INFORMATION DESIGN
Required Courses

| ARTG 2252 | Graphic Design 1 | 4 |
| :--- | :--- | ---: |
| ARTG 3450 | Graphic Design 2 | 4 |
| Electives |  | $16-17$ |
| Complete four of the following: |  |  |
| ARTG 2400 <br> and ARTG 2401 | Interaction Design 1: Responsive <br> and Interaction Design Tools |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3352 | Interaction Design Basics |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 3700 | Interaction Design 2: Mobile |  |
| ARTG 4552 | Information Design 2 |  |
| ARTG 4553 | Environmental Design |  |
| ARTG 4554 | Typography 3 |  |

## CONCENTRATION IN INTERACTION DESIGN

Required Courses

| ARTG 2252 | Graphic Design 1 | 4 |
| :--- | :--- | ---: |
| ARTG 2260 | Programming Basics | 4 |
| ARTG 2400 <br> and ARTG 2401 | Interaction Design 1: Responsive <br> and Interaction Design Tools | 5 |
| ARTG 3700 | Interaction Design 2: Mobile | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ARTG 3450 | Graphic Design 2 |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 4552 | Information Design 2 |  |
| ARTG 4553 | Environmental Design |  |
| ARTG 4554 | Typography 3 |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3462 | Experience Design 1 |  |
| ARTG 3463 | Experience Design 2 |  |
| ARTG 3500 | Transmedia Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 3250 | Physical Computing |  |

## CONCENTRATION IN EXPERIENCE DESIGN

Required Courses

| ARTG 2260 | Programming Basics | 4 |
| :--- | :--- | :--- |
| ARTG 3462 | Experience Design 1 | 4 |
| ARTG 3463 | Experience Design 2 | 4 |

## Electives

Complete three of the following:
12

| ARTG 2252 | Graphic Design 1 |
| :--- | :--- |
| ARTG 3450 | Graphic Design 2 |
| ARTG 3351 | Time-Based Design |
| ARTG 3352 | Interaction Design Basics |
| ARTG 4552 | Information Design 2 |
| ARTG 4553 | Environmental Design |
| ARTG 4554 | Typography 3 |
| ARTG 3460 | Identity and Brand Design |
| ARTG 3500 | Transmedia Design |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTG 3250 | Physical Computing |

## Plan of Study

## BFA in Design with concentration in Graphic and Information Design

SAMPLE FIVE YEARS, TWO CO-OPS IN SPRING/SUMMER 1. YA OR ZA PLAN OF STUDY OPTIONAL.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTF 1124 and ARTF 1125 | 5 Vacation | Vacation |  |
| ARTG 1250 | 4 ARTG 2250 and ARTG 2251 | 5 |  |  |
| ARTF 1122 and ARTF 1123 | 5 ARTH 2210 | 4 |  |  |
| ARTH 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2220 <br> and | 5 ARTF 2223 and | 5 Vacation | Vacation |  |
| ARTF 2221 | ARTF 2224 |  |  |  |
| ARTH 2211 | 4 ARTG 3350 | 4 |  |  |
| ARTG 2252 | 4 Design <br> History Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| EEAM 2000 | 1 Co-op | Co-op | Vacation |  |
| ARTG 3450 | 4 |  |  |  |
| ARTG 3451 | 4 |  |  |  |
| Media Arts | 5 |  |  | 0 |
| Elective |  |  | 0 |  |
| Elective | 4 | 0 |  |  |
|  | 18 |  |  |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Design | 4 Co-op | 0 Co-op | 0 Vacation |  |
| Elective |  |  |  |  |


| Design <br> Elective | 4 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Art and <br> Design <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ARTG 4550 | 4 ARTG 4551 | 4 |
| or 4700 | or 4701 |  |
| Design | 4 Design | 4 |
| Elective | Elective |  |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 136

BFA in Design with concentration in Interaction Design SAMPLE FIVE YEARS, TWO CO-OPS IN SPRING/SUMMER 1. YA OR ZA PLAN OF STUDY OPTIONAL.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTF 1124 and ARTF 1125 | 5 Vacation | Vacation |  |
| ARTG 1250 | 4 ARTG 2250 <br> and ARTG 2251 | 5 |  |  |
| ARTF 1122 <br> and <br> ARTF 1123 | 5 ARTH 2210 | 4 |  |  |
| ARTH 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2220 and ARTF 2221 | 5 ARTG 2252 | 4 Vacation | Vacation |  |
| ARTF 2223 and ARTF 2224 | 5 ARTG 2400 <br> and ARTG 2401 | 5 |  |  |
| ARTH 2211 | 4 ARTG 3350 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 18 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| EEAM 2000 | 1 Co-op | Co-op | Vacation |  |
| ARTG 2260 | 4 |  |  |  |
| ARTG 3451 | 4 |  |  |  |
| Design <br> History <br> Elective | 4 |  |  | 0 |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 |  |


| Year 4 |  |  |  |  | Art and | 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours | Design Elective |  |  |  |  |  |
| ARTG 3700 | 4 Co-op | 0 Co-op | 0 Vacation |  | Elective | 4 |  |  |  |  |
| Art and | 4 |  |  |  |  |  |  |  |  |  |
| Design |  |  |  |  |  | 17 |  | 0 | 0 | 0 |
| Elective |  |  |  |  | Year 4 |  |  |  |  |  |
| Media Arts | 5 |  |  |  | Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective |  |  |  |  | ARTG 3451 |  |  | 0 Co-op | 0 Vacation |  |
| Elective | 4 |  |  |  | Design | 4 |  |  |  |  |
|  | 17 | 0 | 0 | 0 | Elective |  |  |  |  |  |
| Year 5 |  |  |  |  | Media Arts | 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  | Elective |  |  |  |  |  |
| ARTG 4550 | 4 ARTG 4551 | 4 |  |  | Elective | 4 |  |  |  |  |
| or 4700 | or 4701 |  |  |  |  | 17 |  | 0 | 0 | 0 |
| Design | 4 Design | 4 |  |  | Year 5 |  |  |  |  |  |
| Elective | Elective |  |  |  | Fall | Hours | Spring | Hours |  |  |
| Elective | 4 Elective | 4 |  |  | ARTG 4550 |  | ARTG 4551 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  | or 4700 |  | or 4701 |  |  |  |
|  | 16 | 16 |  |  | Design | 4 | Design | 4 |  |  |
| Total Hours: |  |  |  |  | Elective |  | Elective |  |  |  |
|  |  |  |  |  | Elective | 4 | Elective | 4 |  |  |
|  |  |  |  |  | Elective | 4 | Elective | 4 |  |  |
| BFA in De | ign with conce | ntration in Exp | rience Design |  |  | 16 |  | 16 |  |  |

SAMPLE FIVE YEARS, TWO CO-OPS IN SPRING/SUMMER 1. YA OR ZA PLAN OF STUDY OPTIONAL.
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTF 1124 and ARTF 1125 | 5 Vacation | Vacation |  |
| ARTG 1250 | 4 ARTG 2250 and ARTG 2251 | 5 |  |  |
| ARTF 1122 <br> and <br> ARTF 1123 | 5 ARTH 2210 | 4 |  |  |
| ARTH 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2220 and | 5 ARTG 3462 | 4 Vacation | Vacation |  |
| ARTF 2221 |  |  |  |  |
| ARTF 2223 and ARTF 2224 | 5 ARTG 2260 | 4 |  |  |
| ARTH 2211 | 4 Design <br> History <br> Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 18 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| EEAM 2000 | 1 Co-op | Co-op | Vacation |  |
| ARTG 3350 | 4 |  |  |  |
| ARTG 3463 | 4 |  |  |  |

Total Hours: 136

## Media Arts, BFA

The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of animation, game, game art, photography, and video arts are offered with variations more yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film, are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities afford you the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree is designed to prepare students to meet the challenges of continuous change with adaptive ingenuity.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI), and Writing-Intensive (WI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Art and Design Core

| Introduction to College |  |  |
| :---: | :---: | :---: |
| ARTF 1000 | Art and Design at Northeastern | 1 |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4 D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |

## Media Arts Electives

If, instead of completing these media arts electives, you would like to complete a concentration in animation, photography, or video arts, contact your academic advisor.

Note: Courses in this requirement may not be used for the
"Drawing Fundamentals Elective" or "Media Arts History Elective" sections.
Complete six of the following: 24-25

| ARTD 2100 | Narrative Basics |
| :--- | :--- |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTE 2500 | Art and Design Abroad: Studio |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 3901 | Art and Design Special Topics |
| ARTE 4901 | Special Topics in Art and Design Studio |
| ARTE 4902 | Special Topics in Art and Design <br> History |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in <br> the Visual Arts |


| ARTH 5400 | Contemporary Visual Culture |
| :--- | :--- |
| ARTH 5500 | Art and New Media: History and Theory |
| ARTS 2330 | Sculpture Basics |
| ARTS 2340 | Painting Basics |
| ARTS 2341 | Figure Drawing |
| ARTS 3449 | Drawing in Mixed Media |
| ARTD 3460 | Photography 1 |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTD 4565 | Photography 2 |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTD 5582 | Collaborative Video and Community |
| ARTD 4660 | Engagement |
| ARTD 4661 | Alternative Photographic Processes |
| ARTD 4682 | Video in Context: Video and Social |
| Change |  |
| ARTG 2250 | Typography 1 |
| and ARTG 2252 | and Graphic Design 1 |
| ARTG 3351 | Time-Based Design |
| ARTG 3352 | Interaction Design Basics |
| ARTD 3473 | Animation for Games |
| ARTH 1100 | Interactive Media and Society |
| MSCR 3385 | Video: Story and Sequence |
| MSCR 4685 | Interactive Documentary |

## Media Arts Requirements

Drawing Fundamentals Elective

| ARTF 1120 | Observational Drawing | 4 |
| :---: | :--- | :--- |
| or ARTF 1121 | Conceptual Drawing |  |

## Media Arts Basics Elective

Note: If you are pursuing a concentration, select courses not used for your concentration.
Complete one of the following:

| ARTD 2360 | Photo Basics |
| :--- | :--- |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

Media Arts History Elective
Complete one of the following: 4

| ARTH 2211 | Contemporary Art and Design History |
| :--- | :--- |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTH 1100 | Interactive Media and Society |

Design Requirement

| ARTG 2250 | Typography 1 | 5 |
| :--- | :--- | :--- |

## Degree Project

ARTD 4530

## ARTD 4670 Media Arts Degree Project 2 4

## Program Requirement

132 total semester hours required
Plan of Study
Sample Five Years, Two Co-ops in Spring/Summer 1/Sample. ZA Plan of Study only.

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 |  | ARTF 1122 <br> and <br> ARTF 1123 | 5 Vacation | Vacation |  |
| ARTF 1124 and ARTF 1125 |  | ARTF 2220 <br> and <br> ARTF 2221 | 5 |  |  |
| ARTH 1110 | 4 | ARTH 1111 | 4 |  |  |
| Drawing fundamentals elective | 4 | Elective | 4 |  |  |
| Elective | 4 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTG 2250 and | 5 Co-op | Co-op | Vacation |  |
| ARTG 2251 |  |  |  |  |
| Media arts elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EEAM 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 0 |


| Year 4   <br> Fall Hours Spring Hours Summer 1 <br> Media arts <br> elective 4 Co-op Co-op | Hours |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Media arts <br> elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ARTD 4530 <br> or ARTG <br> 4700 | 4 ARTD 4670 or ARTG 4701 | 4 |
| Media arts elective | 4 Media arts elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Total Hours: 136 |  |  |

Media Arts with Concentration in Animation, BFA
The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of animation, game, game art, photography, and video arts are offered with variations more yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film, are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities afford you the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree is designed to prepare students to meet the challenges of continuous change with adaptive ingenuity.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI), and Writing-Intensive (WI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Art and Design Core

Introduction to College
ARTF 1000 Art and Design at Northeastern

| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| :---: | :---: | :---: |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4 D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |
| Concentration in Animation <br> Animation Requirements |  |  |
|  |  |  |
| ARTD 2100 | Narrative Basics | 4 |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools | 5 |
| ARTD 3470 | Animation 1 | 4 |
| ARTD 4570 | Animation 2 | 4 |
| Animation Electives |  |  |
| Complete two of the following: |  | 8 |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 4575 | Animation 3 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| ARTD 3473 | Animation for Games |  |
| Art and Design Elective |  |  |
| Note: Courses in this requirement may not be used for the "Drawing Fundamentals Elective," "Media Arts Basics Elective," "Media Arts History Elective," or "Animation Electives" sections. |  |  |
| Complete one of the following: |  | 4 |
| ARTG 2300 | Business Literacy for Design and Media |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 2501 | Art and Design Abroad: History |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |
| ARTE 4902 | Special Topics in Art and Design History |  |
| ARTF 1121 | Conceptual Drawing |  |
| ARTH 1100 | Interactive Media and Society |  |
| ARTH 2213 | Nineteenth-Century Art |  |
| ARTH 2214 | American Art |  |
| ARTH 4500 | Arts of the African Diaspora |  |
| ARTH 5100 | Contemporary Art Theory and Criticism |  |
| ARTH 5200 | Issues in Contemporary Art |  |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |  |
| ARTH 5400 | Contemporary Visual Culture |  |
| ARTH 5500 | Art and New Media: History and Theory |  |


| ARTS 2330 | Sculpture Basics |
| :--- | :--- |
| ARTS 2340 | Painting Basics |
| ARTS 2341 | Figure Drawing |
| ARTS 3449 | Drawing in Mixed Media |
| ARTD 3460 | Photography 1 |
| ARTD 3480 | Video: Sound and Image |
| ARTD 4565 | Photography 2 |
| ARTD 4660 | Studio Photography |
| ARTD 4661 | Alternative Photographic Processes |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3351 | Time-Based Design |
| ARTG 3352 | Interaction Design Basics |

## Media Arts Requirements <br> Drawing Fundamentals Elective <br> ARTF 1120 Observational Drawing 4

## Media Arts Basics Elective

Note: Select courses not used for the above concentration.
Complete one of the following:

| ARTD 2360 | Photo Basics |
| :--- | :--- |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

## Media Arts History Elective

| ARTH 2211 | Contemporary Art and Design History | 4 |
| :---: | :--- | :--- |
| or ARTH 2212 | Survey of the Still and Moving Image |  |

Design Requirement

| ARTG 2250 <br> and ARTG 2251 | Typography 1 <br> and Type Tools | 5 |
| :--- | :--- | :--- |
| Degree Project | Media Arts Degree Project 1 | 4 |
| ARTD 4530 | Media Arts Degree Project 2 | 4 |

## Program Requirement

132 total semester hours required

## Plan of Study

Sample Five Years, Two Co-ops in Spring/Summer 1/Sample. ZA Plan of Study Only.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTF 1122 and ARTF 1123 | 5 Vacation | Vacation |  |
| ARTF 1120 | 4 ARTF 2220 <br> and ARTF 2221 | 5 |  |  |
| ARTF 1124 <br> and <br> ARTF 1125 | 5 ARTH 1111 | 4 |  |  |
| ARTH 1110 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2223 and ARTF 2224 | 5 ARTD 2100 | 4 Vacation | Vacation |  |
| ARTD 2370 and ARTD 2371 | 5 ARTD 3470 | 4 |  |  |
| ARTH 2210 | 4 Media arts history elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 18 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTD 4570 | 4 Co-op | Co-op | Vacation |  |
| ARTG 2250 and ARTG 2251 | 5 |  |  |  |
| Media arts basics elective | 5 |  |  |  |
| Elective | 4 |  |  |  |
| EEAM 2000 | 1 |  |  |  |
|  | 19 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 <br> Co-op | Hours Summer 2 <br> Vacation | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Media arts <br> elective | 4 Co-op |  |  |  |$\quad 4$|  |  |  |
| :--- | :--- | :--- |
| Animation <br> elective | 4 |  |
|  |  |  |
| Art and <br> design <br> elective | 4 |  |
| Elective |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ARTD 4530 or ARTG 4700 | $\begin{aligned} & 4 \text { ARTD } 4670 \\ & \text { or ARTG } \\ & 4701 \end{aligned}$ | 4 |
| Media arts elective | 4 Media arts elective | 4 |
| Animation elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 137

## Media Arts with Concentration in Photography, BFA

The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of
animation, game, game art, photography, and video arts are offered with variations more yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film, are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities afford you the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree is designed to prepare students to meet the challenges of continuous change with adaptive ingenuity.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI), and Writing-Intensive (WI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Art and Design Core

## Introduction to College

| ARTF 1000 | Art and Design at Northeastern | 1 |
| :---: | :---: | :---: |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |

Concentration in Photography

| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools | 5 |
| :---: | :---: | :---: |
| ARTD 3460 | Photography 1 | 4 |
| ARTD 4565 | Photography 2 | 4 |
| Photography Elective |  |  |
| ARTD 4660 or ARTD 4661 | Studio Photography <br> Alternative Photographic Processes | 4 |
| Art and Design Elective |  |  |
| Note: Courses in this requirement may not be used for the "Drawing Fundamentals Elective," "Media Arts Basics Elective," "Media Arts History Elective," or "Photography Elective" sections. |  |  |
| Complete two of the following: |  | 8 |
| ARTD 2100 | Narrative Basics |  |
| ARTG 2300 | Business Literacy for Design and Media |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 2501 | Art and Design Abroad: History |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |
| ARTE 4902 | Special Topics in Art and Design History |  |
| ARTH 2213 | Nineteenth-Century Art |  |
| ARTH 2214 | American Art |  |
| ARTH 4500 | Arts of the African Diaspora |  |
| ARTH 5100 | Contemporary Art Theory and Criticism |  |
| ARTH 5200 | Issues in Contemporary Art |  |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |  |
| ARTH 5400 | Contemporary Visual Culture |  |
| ARTH 5500 | Art and New Media: History and Theory |  |
| ARTS 2330 | Sculpture Basics |  |
| ARTS 2340 | Painting Basics |  |
| ARTS 2341 | Figure Drawing |  |
| ARTS 3449 | Drawing in Mixed Media |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTD 4570 | Animation 2 |  |
| ARTD 4575 | Animation 3 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| ARTD 5582 | Collaborative Video and Community Engagement |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |
| ARTG 2252 | Graphic Design 1 |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3352 | Interaction Design Basics |  |
| ARTD 3473 | Animation for Games |  |
| ARTH 1100 | Interactive Media and Society |  |

## Media Arts Requirements

Drawing Fundamentals Elective
ARTF 1120 Observational Drawing

## or ARTF 1121 Conceptual Drawing

Media Arts Basics Elective
Note: Select courses not used for the above concentration.
Complete one of the following: 5

| ARTD 2360 | Photo Basics |
| :--- | :--- |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

Media Arts History Elective

| ARTH 2211 | Contemporary Art and Design History | 4 |
| :---: | :--- | :---: |
| or ARTH 2212 | Survey of the Still and Moving Image |  |

Design Requirement

| ARTG 2250 | Typography 1 | 5 |
| :--- | :--- | :--- |
| and ARTG 2251 | and Type Tools |  |

Degree Project
ARTD 4530 Media Arts Degree Project 14
ARTD $4670 \quad$ Media Arts Degree Project 2

## Program Requirement

132 total semester hours required

## Plan of Study

## Sample Five Years, Two Co-ops in Spring/Summer 1/Sample. ZA Plan of Study Only.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTH 1111 | 4 Vacation | Vacation |  |
| ARTH 1110 | 4 ARTF 1122 <br> and ARTF 1123 | 5 |  |  |
| ARTF 1124 <br> and <br> ARTF 1125 | 5 ARTF 2220 | 4 |  |  |
| Drawing fundamentals elective | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2223 <br> and <br> ARTF 2224 | 5 ARTD 3460 | 4 Vacation | Vacation |  |
| ARTD 2360 <br> and <br> ARTD 2361 | 5 ARTH 2212 | 4 |  |  |
| ARTH 2210 | 4 Media arts basics elective | 5 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 18 | 17 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| ARTD 4565 | 4 Co-op | Co-op | Vacation |  |


| ARTG 2250 <br> and <br> ARTG 2251 | 5 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Art and <br> design <br> elective | 4 |  |  |  |
| Elective | 4 | 18 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Art and <br> design <br> history | 4 Co-op | Co-op | Vacation |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ARTD 4530 | 4 ARTD 4670 |  |
| or ARTG |  |  |
| 4700 | or ARTG <br> 4701 | 4 |
| Elective | 4 Art and <br> design <br> elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |

Total Hours: 136

## Media Arts with Concentration in Video Arts, BFA

The continuing revolution in digital computing and global communications has produced a rapidly evolving field for artists who create experiences of image and form with computer screens, intelligent devices, and new materials. Artists also invent tools for exploring, creating, and distributing their ideas and works. Media arts practices of animation, game, game art, photography, and video arts are offered with variations more yet to be invented.

Courses in imaginative and narrative arts, required for professional work in documentary films, game art and promotion, visualization, motion graphics, interactive art, illustration, and short animated film, are offered. An intensive studio program, the curriculum provides knowledge, experience, and techniques of media arts informed by theory, experimentation, and critique. Extensive digital imaging and interactive media editing and production facilities afford you the opportunity to become highly proficient in the current skills and emerging practices necessary for remarkable work. The media arts are evolving and expanding their reach into culture and society in daily life and global experience. The revolutions in 3D printing, embedded devices, and robotics are changing the landscape in which the media artist will operate. This degree is designed to prepare students to meet the challenges of continuous change with adaptive ingenuity.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI), Difference and Diversity (DD), Ethical Reasoning (ER), and Writing-Intensive (WI) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Art and Design Core

## Introduction to College

| ARTF 1000 | Art and Design at Northeastern | 1 |
| :---: | :---: | :---: |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Art and Design History |  |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval | 4 |
| ARTH 1111 | Global Art and Design History: <br> Renaissance to Modern | 4 |
| ARTH 2210 | Modern Art and Design History | 4 |

## Concentration in Video Arts

Video Arts Requirements

| ARTD 2380 | Video Basics | 5 |
| :--- | :--- | ---: |
| and ARTD 2381 | and Video Tools |  |
| ARTD 3480 | Video: Sound and Image | 4 |
| ARTD 5582 | Collaborative Video and Community | 4 |
|  | Engagement |  |
| MSCR 3385 | Video: Story and Sequence | 4 |

Video Arts Electives
Complete two of the following: 8

| ARTD 3485 | Video Art |
| :--- | :--- |
| ARTD 4682 | Video in Context: Video and Social <br> Change |
| MSCR 4685 | Interactive Documentary |
| CINE 4560 | Directing the Short Fiction Film |
| CINE 2160 | Narrative Filmmaking |


| CINE 3446 | Topics in Documentary Production |
| :--- | :--- |
| CINE 3389 | Screenwriting |
| ARTH 2212 | Survey of the Still and Moving Image |
| THTR 2345 | Acting for Cameras |
| MSCR 3500 |  | Documentary Storytelling | Art and Design Electives |
| :--- |
| Note: Courses in this requirement may not be used for |


| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| :---: | :---: | :---: |
| Media Arts History Elective |  |  |
| Complete one of the following: |  | 4 |
| ARTH 1100 | Interactive Media and Society |  |
| ARTH 2211 | Contemporary Art and Design History |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Design Requirement |  |  |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools | 5 |
| Degree Project |  |  |
| ARTD 4530 | Media Arts Degree Project 1 | 4 |
| ARTD 4670 | Media Arts Degree Project 2 | 4 |

## Program Requirement

132 total semester hours required

## Plan of Study

Sample Five Years, Two Co-ops in Spring/Summer 1/Sample. ZA Plan of Study Only.

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARTF 1000 | 1 ARTF 1122 <br> and ARTF 1123 | 5 Vacation | Vacation |  |
| ARTF 1124 and ARTF 1125 | 5 ARTF 2220 <br> and ARTF 2221 | 5 |  |  |
| ARTH 1111 | 4 ARTH 1110 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2223 and ARTF 2224 | 5 MSCR 3385 | 4 Vacation | Vacation |  |
| ARTD 2380 and ARTD 2381 | 5 Drawing fundamentals elective | 4 |  |  |
| ARTH 2210 | 4 Media arts history elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 18 | 16 | 0 | 0 |

Year 3

| Media Arts Requirements |
| :--- |
| Drawing Fundamentals Elective |
| ARTF 1120 Observational Drawing <br> or ARTF 1121 Conceptual Drawing |

## Media Arts Basics Elective

Note: Select courses not used for the above concentration.
Complete one of the following:

| ARTD 2360 | Photo Basics |
| :--- | :--- |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |


| Fall <br> ARTD 3480 | Hours Spring 4 Co-op | Hours Summer 1 Co-op | Hours Summer 2 <br> Vacation | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTG 2250 <br> and <br> ARTG 2251 | 5 |  |  |  |
| Media arts basics elective | 5 |  |  |  |
| Elective | 4 |  |  |  |
| EEAM 2000 | 1 |  |  |  |
|  | 19 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| ARTD 4582 | 4 Co-op | Co-op | Vacation |  |
| Media arts <br> elective | 4 |  |  |  |
| Video arts <br> elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ARTD 4530 | 4 ARTD 4670 | 4 |
| Video arts | 4 Media arts |  |
| elective | elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 137

## Studio Art, BFA

The BFA in studio art is offered in partnership with the School of the Museum of Fine Arts, Boston (SMFA), adjacent to the Northeastern campus. In this major, the studio art classes are taken at the SMFA, which permits students to explore a wide range of artistic media including ceramics, drawing, film, glasswork, metalsmith, painting, performance, print and paper, sculpture, and sound in their extensive studio environments. Art and design history courses are taken at Northeastern. In addition students have access to all the elective courses, co-op, study-abroad programs, technology, and student resources that Northeastern students experience.

The BFA in studio art degree is awarded by Northeastern.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Interpreting Culture (IC) and Societies and Institutions (SI) are met through the major course requirements. All other NUpath requirements must be met through electives.

Note: The BFA in studio art is a joint degree program offered in collaboration with the School of the Museum of Fine Arts, Boston. Art and design history and general education requirements are offered at Northeastern University, and studio art courses, which are determined in consultation with academic advisors at the School of the Museum of Fine Arts, are targeted to each student's unique program of study.

## Art History Requirements for Studio Art

A cumulative grade-point average (GPA) of 2.500 or higher is required for the art history requirements.

## Art History Required Courses

| ARTH 2210 | Modern Art and Design History | 4 |
| :--- | :--- | :--- |
| ARTH 2211 | Contemporary Art and Design History | 4 |

Art and Design History Electives
Complete three of the following:

| ARTH 1100 | Interactive Media and Society |
| :---: | :---: |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTH 5500 | Art and New Media: History and Theory |
| ARTH 5902 | Special Topics in Art and Design History |
| ARTE 2500 | Art and Design Abroad: Studio |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 3901 | Art and Design Special Topics |
| ARTE 4901 | Special Topics in Art and Design Studio |
| ARTE 4902 | Special Topics in Art and Design History |
| ARCH 1310 | Architecture and Global Cultures, Prehistory to 1400 |
| ARCH 1320 | Architecture and Global Cultures, 1400 to Present |
| ARCH 1350 | American Architecture |
| ARCH 2330 | Architecture, Modernity, and the City, 1800 to 1910 |
| ARCH 2340 | Architecture, Modernity, and the City, 1910 to 1980 |
| ARCH 3350 | American Houses and Housing |
| CLTR 1240 | Latin American Film |
| CLTR 1260 | Japanese Film |
| CLTR 1265 | Spanish Civil War on Film |
| CLTR 1280 | French Film and Culture |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| CLTR 2504 | Modern German Film and Literature |
| CINE 2350 | History of Film |
| CINE 2336 | American Film and Culture |
| CINE 3392 | Gender and Film |
| CINE 3500 | Film Theory |
| CINE 3920 | Topics in Film Studies |
| CLTR 3930 | Topics in International Cinema |
| CINE 2394 | Modern Film and Global Culture |


| CINE 4500 | Modernism/Modernity and Film |
| :--- | :--- |
| ECON 1281 | Economics of the Creative Industries |
| ENGL 3488 | Film and Text |
| GAME 1110 | Games and Society |
| HIST 2386 | History of Soviet Cinema |
| HIST 3421 | History through Film |
| MSCR 1220 | Media, Culture, and Society |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2305 | Digital Media Culture |
| MSCR 3426 | Popular Music as Media Form |
| MUSC 1101 | Introduction to Music |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1113 | Film Music |

## Studio Art Courses

## Studio Art

Specific courses are targeted to each student's unique 68 program of study, which is determined in consultation with an academic advisor at the School of the Museum of Fine Arts, Boston. These courses generally have the following course number:

```
SMFA 3000 Museum of Fine Arts Studio (4 to 12
SH)
```


## Senior Thesis Capstone

Senior thesis is a self-directed studio practice and exhibition under consultation of senior thesis faculty at the School of the Museum of Fine Arts, Boston. These courses are generally in the SMFA subject area:

```
SMFA 4000 Museum of Fine Arts Capstone
```


## Studio Art Major Credit Requirement

Complete 96 semester hours in the major.

## Program Requirement

136 total semester hours required

## Plan of Study

Sample Four Years, No Co-op

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARTF 1000 | 1 SMFA 3000 | 10 Vacation | 0 |  |
| SMFA 3000 | 10 ARTH 2210 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Art history <br> elective | 4 |  |  | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SMFA 3000 | 10 SMFA 3000 | 10 Vacation | 0 Vacation | 0 |
| ARTH 2211 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | 18 | 18 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SMFA 3000 | 10 SMFA 3000 | 10 Vacation | 0 Vacation | 0 |


| Elective | 4 Art history <br> elective | 4 | 0 | 0 |
| :--- | :---: | ---: | :--- | :--- |
| Elective | 4 Elective | 4 | 18 |  |
|  | 18 |  |  |  |
| Year 4 |  | 4 |  |  |
| Fall | Hours Spring | Hours |  |  |
| SMFA 3000 | 4 SMFA 3000 | 4 |  |  |
| SMFA 4000 | 4 SMFA 4000 | 4 |  |  |
| Art history | 4 Elective | 4 |  |  |
| elective | 4 Elective | 4 |  |  |
| Elective | 16 | 16 |  |  |

## Digital Art and Game Design, BFA

The BFA in digital art and game design combined major offers students an opportunity to develop skills in the visual arts within games, while focusing on the depth of knowledge required to be successful in a highly competitive industry. The continuing revolution in digital computing and animation has produced a rapidly evolving field for artists who create aesthetics, characters, and environments for games. The combined majors encourage students to think and work collaboratively in multidisciplinary teams. The collaborative approach helps all team members to understand the context in which their asset contributions are used and to develop visual design skills in the service of larger experiential goals. Students have many opportunities to collaborate with their peers and work with students in all game design combined majors, culminating in a two-semester senior capstone. Students will have a home college in the College of Arts, Media and Design but will have a minimum of four interdisciplinary courses where students interact and work together with students in the BS in computer science degree.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression (EI) and Analyzing/Using Data (AD) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Digital Art Courses

| Code $\quad$ Title | Hours |  |
| :--- | :--- | ---: |
| Art and Design Learning Community |  |  |
| ARTF 1000 | $\quad$ Art and Design at Northeastern | 1 |
| Art and Design Foundation | 4 |  |
| ARTH 1111 | Global Art and Design History: <br>  <br> $\quad$Renaissance to Modern |  |


| ARTF 1120 | Observational Drawing | 4 |
| :---: | :---: | :---: |
| ARTF 1121 | Conceptual Drawing | 4 |
| ARTF 1122 <br> and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| ARTH 2212 | Survey of the Still and Moving Image | 4 |
| Digital Art Requirements |  |  |
| Complete two of the following: |  | 10 |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| Digital Art Electives |  |  |
| Complete two of the following: |  | 8 |
| ARTD 3460 | Photography 1 |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3473 | Animation for Games |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 4565 | Photography 2 |  |
| ARTD 4570 | Animation 2 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| ARTD 5582 | Collaborative Video and Community Engagement |  |

## General Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 1260 | Math Fundamentals for Games | 4 |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |
| and CS 2501 | and Lab for CS 2500 |  |
| Computing and Social Issues |  |  |
| This course should be taken only after the student has   <br> completed 56 semester hours.   <br> Complete one of the following:   <br> SOCL 4528  Computers and Society <br> PHIL 1145   Technology and Human Values |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |

## Game Design Courses

Code

Game Design Title | Hours |
| :---: |
| GAME 1110 |
| GAME 3300 |
| GAME 3700 | Game Interface Design $\quad 4$

| GAME 3800 | Game Concept Development and <br> Production | 4 |
| :--- | :--- | ---: |
| GAME 4700 | Game Design Capstone 1 | 4 |
| GAME 4701 | Game Design Capstone 2 | 4 |
| Interactive Media |  | 4 |
| ARTD 2100 | Narrative Basics | 4 |
| ARTG 2260 | Programming Basics |  |

## Game Design Electives

Code Title Hours

Complete three courses from the following lists. If the course 12-15
has prerequisites, the student must complete those first unless permission is obtained in advance from the faculty.
Game Design

| GAME 3150 | Game Design Algorithms |
| :---: | :--- |
| GAME 3400 | Level Design and Game Architecture |
| GAME 3250 | Artificial Intelligence for Games |
| Art and Design |  |
| ARTH 2210 | Modern Art and Design History |
| Graphic Design |  |
| ARTG 2252 | Graphic Design 1 |
| ARTG 2250 | Typography 1 |
| and ARTG 2251 | and Type Tools |
| ARTG 3350 | Typography 2 |
| Interactive Media |  |

ARTH 1100 Interactive Media and Society
ARTD 2200 Interactive Narrative
ARTG 2300 Business Literacy for Design and Media
ARTG $2400 \quad$ Interaction Design 1: Responsive
and ARTG 2401 and Interaction Design Tools
ARTE $4901 \quad$ Special Topics in Art and Design Studio

| Computer Science |  |
| :--- | :--- |
| CS 2510 |  |
| and CS 2511 | Fundamentals of Computer Science 2 |
| CS 2800 | Logic and Computation |
| and CS 2801 | and Lab for CS 2800 |
| CS 3200 | Database Design |
| CS 3500 | Object-Oriented Design |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4300 | Computer Graphics |
| IS 4300 | Human Computer Interaction |
| CS 4400 | Programming Languages |
| CS 4550 | Web Development |
| CS 4800 | Algorithms and Data |
| Psychology |  |
| PSYC 3452 | Sensation and Perception |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

## Required General Electives

Code Title Hours

[^1]
## Program Requirement

138 total semester hours required

## Plan of Study

Sample Five Years, Two Co-ops in Spring/Summer 1. ZA Plan Only.

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARTF 1000 | 1 | GAME 1110 | 4 Vacation | 0 Vacation | 0 |
| ARTF 1120 | 4 | ARTF 1121 | 4 |  |  |
| ARTF 1124 <br> and <br> ARTF 1125 | 5 | ARTH 2212 | 4 |  |  |
| ARTH 1111 |  | ARTF 1122 and ARTF 1123 | 5 |  |  |
| ENGW 1111 | 4 |  |  |  |  |
|  | 18 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 2220 and | 5 GAME 2150 | 4 Vacation | Vacation |  |
| ARTF 2221 |  |  |  |  |
| ARTF 2223 and ARTF 2224 | 5 ARTD 2100 | 4 |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 Digital art elective | 4 |  |  |
| MATH 1260 | 4 PSYC 1101 | 4 |  |  |
|  | EEAM 2000 | 1 |  |  |
|  | 19 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| GAME 3300 | 4 Co-op | Co-op | Vacation |  |
| GAME 3700 | 4 |  |  |  |
| Digital art <br> elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| GAME 3800 | 4 Co-op | Co-op | Vacation |  |
| Ethics and culture elective | 4 |  |  |  |
| Digital art elective | 4 |  |  |  |
| Game design elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| GAME 4700 | 4 GAME 4701 | 4 |
| Game design <br> elective | 4 Game design |  |
| elective |  |  |$\quad 4$


| Digital art <br> elective | 4 Elective | 4 |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 135

## Business Administration and Interactive Media, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Business Core Requirements

Code Title Hours

## Mathematics

Complete one of the following:

| MATH 1231 | Calculus for Business and Economics |  |
| :--- | :--- | ---: |
| MATH 1241 | Calculus 1 |  |
| MATH 1260 | Math Fundamentals for Games |  |
| Macroeconomics and Microeconomics  <br> ECON 1115 Principles of Macroeconomics <br> or ECON 1116 Principles of Microeconomics <br> Business Requirements  <br> Code Title |  |  |


| Accounting |  |
| :--- | :--- |
| ACCT 1201 | Financial Accounting and Reporting |


| Business Statistics |  | 4 |
| :--- | :--- | :--- |
| MGSC 2301 | Business Statistics |  |

International Business/Social Responsibility

| INTB 1203 | International Business and Global <br> Social Responsibility | 4 |
| :--- | :--- | :--- |


| Marketing |  |
| :--- | :--- |
| MKTG 2201 | Introduction to Marketing |


| Finance |  | 4 |
| :--- | :--- | :--- |
| FINA 2201 | Financial Management |  |


| Organizational Behavior |  |
| :--- | :--- |
| ORGB 3201 | Organizational Behavior |

Business Core Option
Complete one of the following:

| ACCT 2301 | Managerial Accounting |
| :--- | :--- |
| MISM 2301 | Management Information Systems |
| SCHM 2301 | Supply Chain and Operations <br>  |

## Professional Development

| BUSN 1103 | Professional Development for Business <br> Co-op |
| :---: | :--- |
| or EEAM 2000 | Professional Development for Co-op |

## Interactive Media Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Interactive Media Courses |  |  |$\quad$| 5D Fundamentals: Experience and |
| :--- |
| ARTF 2223 |
| and ARTF 2224 |$\quad$| Drawing |
| :--- |
| and 5D Tools |$\quad 4$

## Marketing Concentration

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research |  |
| Electives |  |  |

At least one course must be taken from the business courses listed and one from the interactive media courses listed.
Complete three of the following:
Business

| MKTG 4502 | Marketing in the Service Sector |
| :--- | :--- |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| Interactive Media |  |
| ARTF 2220 | 4D Fundamentals: Sequence and |
| ARTG 2252 | Grawing |
| ARTG 3350 | Typography 2 |
| ARTD 2200 | Interactive Narrative |
| ARTG 3250 | Physical Computing |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTE 4901 | Special Topics in Art and Design Studio |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following list. Requirements for the concentrations are listed below (p. 76).

## - Accounting

- Business/Interdisciplinary
- Entrepreneurship and Innovation
- Finance

1 - Management

- Management Information Systems
- Supply Chain Management


## Integrative Courses



## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Program Requirement

132 total semester hours required

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

## CONCENTRATION IN ACCOUNTING Code Hours

## Required Courses

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| :--- | :--- | :--- |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title

Hours
Note: The following courses do not count toward this concentration:

ENTR 1201 The Entrepreneurial Universe

| ENTR 3308 | Business Economic History of South <br> Africa |
| :--- | :--- |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business <br> ENTR 3338Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |


| Introductory Course |  | 4 |
| :--- | :--- | :--- |
| ENTR 2301 | Innovation! | 4 |
| or ENTR 2303 Entrepreneurial Marketing and Selling |  |  |
| Capstone Course |  | 4 |
| Complete one of the following: |  |  |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |
| Electives |  |
| Complete two of the following: |  |
| ENTR 2206 | Global Social Enterprise |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |
| ENTR 3217 | Global Family Business Leadership |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing |
| ENTR 3220 | International Entrepreneurship and |
| Innovation |  |


| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and <br> Alliances |
| :--- | :--- |
| ENTR 4512 | Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

CONCENTRATION IN FINANCE

| Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 |  |  |
| or FINA 3303 |  |  |$\quad$| Corporate Finance |
| :--- |
| Investments |$\quad 4$

## CONCENTRATION IN MANAGEMENT Code Title Hours

## Required Course

MGMT 4501 Skills for Managerial Success 4

## Electives

Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New |
| MGMT 3420 | Approaches |


| MGMT 3530 | Project Management |  |
| :---: | :---: | :---: |
| MGMT 4310 | The Management Practices of Great Organizations |  |
| MGMT 4410 | Human Resources and Workforce Analytics |  |
| MGMT 4603 | Leadership Seminar |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of | following: | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |
| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Computer Science and Digital Art, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 | Discrete Structures |  |
| :--- | :--- | :--- |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |

and CS 2501 and Lab for CS 2500
CS 2510 Fundamentals of Computer Science 2 5
and CS 2511 and Lab for CS 2510
and CS $2801 \quad$ and Lab for CS 2800

Computer Science Required Courses
CS 3200 Database Design 4
CS 3500 Object-Oriented Design 4
CS 4300 Computer Graphics 4
CS 4500 Software Development 4
CS $4800 \quad$ Algorithms and Data 4
IS $4300 \quad$ Human Computer Interaction 4

Computer Science Senior Seminar
CS 4000 Senior Seminar 1

The Eloquent Presenter
Computer Science Elective Courses
Complete two courses from the following ranges:
8
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Digital Art Courses

$\left.\begin{array}{llr}\text { Code } & \text { Title } \\ \text { Required Digital Art Courses } \\ \text { ARTF 1122 } \\ \text { and ARTF 1123 }\end{array} \quad \begin{array}{l}\text { 2D Fundamentals: Surface and Drawing } \\ \text { and 2D Tools }\end{array}\right)$

| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |
| :---: | :---: |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |
| Photography |  |
| ARTD 3460 | Photography 1 |
| ARTD 4565 | Photography 2 |
| ARTD 4660 | Studio Photography |
| ARTD 4661 | Alternative Photographic Processes |
| Animation |  |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| Video |  |
| ARTD 3480 | Video: Sound and Image |
| ARTD 5582 | Collaborative Video and Community Engagement |
| ARTD 4682 | Video in Context: Video and Social Change |
| History |  |
| ARTH 2212 | Survey of the Still and Moving Image |


| Digital Art Capstone Requirement |  |  |
| :--- | :--- | :--- |
| ARTD 4530 | Media Arts Degree Project 1 | 4 |
| ARTD 4670 | Media Arts Degree Project 2 | 4 |

## Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 2331 | Linear Algebra | 4 |

Computing and Social Issues
Code $\quad$ Title
Complete one of the following: 4

| PHIL 1145 | Technology and Human Values |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> Technopolitics |
| CA 5240 | Cyberlaw: Privacy, Ethics, and Digital |


| Computer Science English Requirement |  |
| :--- | :--- |
| Code Title | Hours |
| College Writing |  |
| ENGW 1111 | First-Year Writing |


| Advanced Writing in the Disciplines |  |
| :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions |

## or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

| Code | Title |
| :--- | ---: |
| Complete four general electives. | Hours |
|  | 16 |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Integrating Knowledge and Skills Through Experience
- Demonstrating Thought and Action in a Capstone


## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Program Requirement

137 total semester hours required

## Plan of Study

Five Years, Two Co-Ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | 0 Vacation | 0 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| ARTF 1122 <br> and <br> ARTF 1123 |  | ARTF 1124 and ARTF 1125 | 5 |  |  |
| ENGW 1111 | 4 | PSYC 1101 | 4 |  |  |
| CS 1200 | 1 |  |  |  |  |
|  | 19 |  | 19 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 4800 | 4 Vacation | 0 Vacation | 0 |
| CS 3200 | 4 Digital art <br> elective |  |  |  |
| ARTF 2220 <br> and | D Digital art <br> elective | 5 IS 4300 | 4 |  |
| ARTF 2221 | ARTF 2223 <br> and | 18 | 8 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BS computer science elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Digital art elective | 4 |  |  |  |
| Digital art elective | 4 |  |  |  |
| MATH 2331 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
|  | 17 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 4300 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Digital art <br> elective | 4 |  |  |  |
| ENGW 3302 | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4500 | 4 Elective | 4 |
| ARTD 4530 | 4 Elective | 4 |
| BS computer <br> science <br> elective | 4 CS 4000 | 1 |
| Elective | 4 ARTD 4670 | 4 |
|  | SOCL 4528 | 4 |

Total Hours: 130

## Computer Science and Interactive Media, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science | Overview | 1 |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

| A grade of C-or higher is required: |  |  |
| :--- | :--- | ---: |
| CS 1800 | Discrete Structures |  |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 | Fundamentals of Computer Science 1 |  |


| CS 2500 | Fundamentals of Computer Science 1 |
| :--- | :--- | :--- |
| and CS 2501 | and Lab for CS 2500 |


| CS 2510 | Fundamentals of Computer Science 2 | 5 |
| :--- | :--- | :--- |
| and CS 2511 | and Lab for CS 2510 |  |
| CS 2800 | Logic and Computation | 5 |

and CS 2801 and Lab for CS 2800

| Computer Science Required Courses | 4 |  |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4300 | Computer Graphics | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Computer Science Senior Seminar |  |
| :--- | :--- |
| CS 4000 | Senior Seminar |

or THTR 1170 The Eloquent Presenter

## Design Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| ARTH 1100 | Interactive Media and Society | 4 |
| ARTD 2100 | Narrative Basics | 4 |
| or ARTG 1250 | Design Process Context and Systems |  |
| ARTG 2260 | Programming Basics | 4 |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools | 5 |
| ARTG 4700 | Interaction Team Degree Project 1 | 4 |
| ARTG 4701 | Interaction Team Degree Project 2 | 4 |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| Complete one of the following: |  | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |

## Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 1260 | Math Fundamentals for Games | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :---: | :---: | :---: |
| Complete one of the following: |  | 4 |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |


| Creative Industries Electives |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Complete five cours | from the following lists: | 20-25 |
| Game Design |  |  |
| GAME 1110 | Games and Society |  |
| GAME 2200 | Games and Learning |  |
| GAME 2500 | Foundations of Game Design |  |
| GAME 3300 | Game Interface Design |  |
| GAME 3400 | Level Design and Game Architecture |  |
| GAME 3700 | Rapid Idea Prototyping for Games |  |
| GAME 3800 | Game Concept Development and Production |  |
| GAME 3899 | Topics in Game Design |  |
| Art and Design |  |  |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |  |
| ARTH 2210 | Modern Art and Design History |  |
| ARTH 2211 | Contemporary Art and Design History |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |
| Animation |  |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3473 | Animation for Games |  |
| ARTD 4570 | Animation 2 |  |
| ARTD 4575 | Animation 3 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| Video |  |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 5582 | Collaborative Video and Community Engagement |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |
| Photography |  |  |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 3460 | Photography 1 |  |
| ARTD 4565 | Photography 2 |  |
| ARTD 4661 | Alternative Photographic Processes |  |
| Graphic Design |  |  |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools |  |
| ARTG 2252 | Graphic Design 1 |  |
| ARTG 3350 | Typography 2 |  |

Interactive Media

| ARTD 2200 | Interactive Narrative |
| :---: | :---: |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTG 3250 | Physical Computing |
| ARTG 3500 | Transmedia Design |
| ARTG 3700 | Interaction Design 2: Mobile |
| Computer Science |  |
| CS 3200 | Database Design |
| CS 3520 | Programming in C++ |
| CS 3540 | Game Programming |
| CS 3650 | Computer Systems |
| CS 3700 | Networks and Distributed Systems |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4150 | Game Artificial Intelligence |
| CS 4400 | Programming Languages |
| CS 4550 | Web Development |
| CS 4850 | Building Game Engines |
| CS 4910 | Computer Science Topics |
| CS 4991 | Research |
| CS 4992 | Directed Study |
| CS 4993 | Independent Study |
| Psychology |  |
| PSYC 3452 | Sensation and Perception |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |
| Mathematics |  |
| 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 3081 | Probability and Statistics |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering |

## Computer Science English Requirement

Code Title Hours

## College Writing

ENGW 1111 First-Year Writing 4
Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title Hours
Complete five general electives. 20

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Major GPA Requirements

Minimum 2.000 GPA required in all CS, IS, and IM required courses

## Program Requirement

136 total semester hours required

## Plan of Study

Four Years, Two Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours |  |
| :---: | :---: | :---: | :---: | :---: |
| CS 1200 | $\begin{aligned} & 1 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3500 | 4 |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 CS 4800 | 4 |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 ARTH 1100 | 4 |  |  |
| ENGW 1111 | 4 ARTF 1124 and ARTF 1125 | 5 |  |  |
| ARTF 1122 <br> and <br> ARTF 1123 | 5 |  |  |  |
|  | 19 | 19 | 8 |  |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ARTG 2260* |  | Co-op 1 | Elective | 4 |
| MATH 1260 | 4 |  | Elective | 4 |
| PSYC 1101 | 4 |  |  |  |
| ARTD 2100 <br> or ARTG $1250$ | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 4300 | 4 Co-op 2 | Co-op 2 | ENGW 1111 | 4 |
| ARTG 2400 <br> and | 5 |  | Elective | 4 |
| ARTG 2401* |  |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS 4500 | 4 ARTG 4701* | 4 Elective | 4 |
| ARTG 4700* | 4 Computing <br> and Social | 4 Elective | 4 |
|  | Issues |  |  |


| Creative <br> Industries | 4 Creative <br> Industries | 4 |  |
| :--- | :---: | :---: | :--- |
| Elective 2 | Elective 4 |  |  |
| Creative 4 Creative <br> Industries Industries  <br> Elective 3   | 4 |  |  |
|  | 16 | 16 | 8 |

Total Hours: 137

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| CS 1200 | $\begin{aligned} & 1 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | $5 \operatorname{CS} 3500$ | 4 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | $5 \operatorname{CS} 4800$ | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 ARTH 1100 | 4 |  |
| ENGW 1111 | 4 ARTF 1124 <br> and ARTF 1125 | 5 |  |
| ARTF 1122 <br> and <br> ARTF 1123 | 5 |  |  |
|  | 19 | 19 | 8 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ARTG 2260* | 4 Co-op 1 | Co-op 1 | Elective | 4 |
| MATH 1260 | 4 |  | Elective | 4 |
| PSYC 1101 | 4 |  |  |  |
| ARTD 2100 <br> or ARTG | 4 |  |  |  |
| 1250 |  |  |  |  |
| CS 1210 | 1 |  |  | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| IS 4300 | 4 Co-op 2 | Co-op 2 |  |
| ARTG 2400 <br> and | 5 |  |  |
| ARTG 2401* |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| ENGW 3302 | 4 Co-op 3 | Co-op 3 |  |


| Creative <br> Industries <br> Elective 3 | 4 |  |  |
| :--- | :---: | :--- | :--- |
|  | 16 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| CS 4500 | 4 ARTG 4701 | 4 |
| ARTG 4700* | 4 Computing <br> and Social <br> Issues | 4 |
| Creative | 4 Creative |  |
| Industries | Industries <br> Elective 5 | 4 |
| Elective 4 | 4 Elective | 4 |
| Elective | 16 | 16 |

Total Hours: 137

* Indicates course must be taken in the semester listed.


## Graphic and Information Design and Mathematics, BS

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Graphic and Information Design Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Art and Design at Northeastern |  |  |
| ARTF 1000 | Art and Design at Northeastern | 1 |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| Art and Design History |  |  |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2215 | History of Graphic Design | 4 |
| Design |  |  |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools | 5 |
| ARTG 2252 | Graphic Design 1 | 4 |
| ARTG 3350 | Typography 2 | 4 |
| ARTG 3451 | Information Design 1 | 4 |
| Degree Project |  |  |
| ARTG 4550 | Design Degree Project 1 | 4 |

## Art and Design Electives

| Complete one of the following: |  | 4-5 |
| :---: | :---: | :---: |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| ARTG 2260 | Programming Basics |  |
| ARTF 1120 | Observational Drawing |  |
| ARTF 1121 | Conceptual Drawing |  |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 <br> and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3352 | Interaction Design Basics |  |
| ARTG 3450 | Graphic Design 2 |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 3700 | Interaction Design 2: Mobile |  |
| ARTG 4551 | Design Degree Project 2 |  |
| ARTG 4552 | Information Design 2 |  |
| ARTG 4553 | Environmental Design |  |
| ARTG 4554 | Typography 3 |  |

## Mathematics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Math Reasoning |  | 4 |
| MATH 1365 | Introduction to Mathematical <br> Reasoning |  |

Calculus
A grade of $C$ or higher is required:

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | ---: |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Intermediate Math |  | 4 |
| MATH 2341 | Differential Equations and Linear <br>  <br> MATH 2331 | Linebra for Engineering |

Advanced Electives
Complete one of the following:

| MATH 3150 | Real Analysis |
| :--- | :--- |
| MATH 3175 | Group Theory |
| MATH 3560 | Geometry |

## Mathematics Elective

MATH 4025 can count as an upper level math elective as well as a capstone.
Complete one course in the following range: 4 MATH 3101 to MATH 4899

## Integrative Requirement

| Code | Title |
| :--- | :--- |
| ARTG 3451 | Information Design 1 |

Hours
4
Combined-Major Credit Requirement
Complete 83 semester hours in the major.

## Program Requirement

128 total semester hours required

## Animation, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000-level courses and above need to plan ahead in order to complete prerequisite course(s) ahead of time.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.
Required Courses

| ARTF 1120 | Observational Drawing | 4 |
| :--- | :--- | ---: |
| ARTF 1122 <br> and ARTF 1123 | 2D Fundamentals: Surface and Drawing <br> and 2D Tools | 5 |
| ARTF 2220 | 4D Fundamentals: Sequence and <br> and ARTF 2221 | Drawing <br> and 4D Tools |
| ARTD 2370 Animation Basics <br> and Animation Tools <br> ARTD 3470 2371 Animation 1 | 5 |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Media Arts program.

| Required Courses |  |
| :--- | :--- |
| ARTF 1120 | Observational Drawing |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 3470 | Animation 1 |
| Electives | 4 |
| Complete two of the following: | 8 |
| ARTD 2100 | Narrative Basics |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3473 | Animation for Games |
| ARTE 3901 | Art and Design Special Topics |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTE 4901 | Special Topics in Art and Design Studio |
| ARTH 2212 | Survey of the Still and Moving Image |

## GPA Requirement

2.500 GPA required in the minor

## Art, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000-level courses and above need to plan ahead in order to complete prerequisite course(s) ahead of time.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Art Required Courses

| ARTF 1120 | Observational Drawing | 4 |
| :--- | :--- | :--- |
| ARTF 1122 | 2D Fundamentals: Surface and Drawing | 5 |
| and ARTF 1123 | and 2D Tools |  |

Art Elective Courses
Complete three of the following:
ARTF 1121 Conceptual Drawing
ARTF 2223 5D Fundamentals: Experience and
and ARTF 2224 Drawing and 5D Tools
ARTF 2220 4D Fundamentals: Sequence and
and ARTF 2221 Drawing and 4D Tools
ARTF 1124 3D Fundamentals: Structure and
and ARTF 1125 Drawing and 3D Tools
ARTS 2330 Sculpture Basics
ARTS $2340 \quad$ Painting Basics
ARTS 2341 Figure Drawing
ARTS $3449 \quad$ Drawing in Mixed Media
ARTE $2500 \quad$ Art and Design Abroad: Studio
ARTE $2501 \quad$ Art and Design Abroad: History
ARTE 3901 Art and Design Special Topics
ARTD 2360 Photo Basics
and ARTD 2361 and Photo Tools
ARTD 2370 Animation Basics
and ARTD 2371 and Animation Tools
ARTD 2380 Video Basics
and ARTD 2381 and Video Tools

| ARTH 1110 | Global Art and Design History: Ancient <br> to Medieval |
| :--- | :--- |
| ARTH 1111 | Global Art and Design History: <br> Renaissance to Modern |
| ARTH 2210 | Modern Art and Design History |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 2212 | Survey of the Still and Moving Image |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BA in Art program.

## Required Courses

| ARTF 1120 | Observational Drawing | 4 |
| :--- | :--- | ---: |
| ARTF 1122 | 2D Fundamentals: Surface and Drawing | 5 |
| and ARTF 1123 | and 2D Tools |  |
| Elective Courses |  | $12-15$ |


| ARTS 2330 | Sculpture Basics |
| :--- | :--- |
| ARTS 2340 | Painting Basics |
| ARTS 2341 | Figure Drawing |
| ARTS 3449 | Drawing in Mixed Media |
| ARTE 2500 | Art and Design Abroad: Studio |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 3901 | Art and Design Special Topics |
| ARTD 2360 | Photo Basics <br> and ARTD 2361 |
| ARTD 2370 | Animation Basics <br> and Animation Tools |
| and ARTD 2371 | Video Basics <br> and Video Tools |
| and ARTD 2381 2380 | Global Art and Design History: Ancient <br> to Medieval |
| ARTH 1110 | Global Art and Design History: <br> Renaissance to Modern |
| ARTH 1111 | Modern Art and Design History |
| ARTH 2210 Contemporary Art and Design History |  |

## GPA Requirement

2.500 GPA required in the minor

## Art History, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000-level courses and above need to plan ahead in order to complete prerequisite course(s) ahead of time.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

Complete five of the following:

| ARTH 1100 | Interactive Media and Society |
| :---: | :---: |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |
| ARTH 2210 | Modern Art and Design History |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 2215 | History of Graphic Design |
| ARTH 2217 | American Animation Film |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTH 5500 | Art and New Media: History and Theory |


| ARTH 5902 | Special Topics in Art and Design <br> History |
| :--- | :--- |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 4902 | Special Topics in Art and Design <br> History |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BA in Art program.

## Required Courses

Complete five of the following: 20

| ARTH 1100 | Interactive Media and Society |
| :---: | :---: |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |
| ARTH 2210 | Modern Art and Design History |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTH 2213 | Nineteenth-Century Art |
| ARTH 2214 | American Art |
| ARTH 2215 | History of Graphic Design |
| ARTH 2217 | American Animation Film |
| ARTH 4500 | Arts of the African Diaspora |
| ARTH 5100 | Contemporary Art Theory and Criticism |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTH 5500 | Art and New Media: History and Theory |
| ARTH 5902 | Special Topics in Art and Design History |
| ARTE 2501 | Art and Design Abroad: History |
| ARTE 4902 | Special Topics in Art and Design History |

## GPA Requirement

2.500 GPA required in the minor

## Experience Design, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Any prerequisites should be taken before registering for 2000 level courses and above.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

| ARTF 2223 |  |  |
| :--- | :--- | ---: |
| and ARTF 2224 | 5D Fundamentals: Experience and <br> Drawing <br> and 5D Tools | 5 |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 3462 | Experience Design 1 | 4 |
| Elective | $8-10$ |  |


| ARTF 1124 <br> and ARTF 1125 | 3D Fundamentals: Structure and <br> Drawing <br> and 3D Tools |
| :--- | :--- |
| ARTG 2400 <br> and ARTG 2401 | Interaction Design 1: Responsive <br> and Interaction Design Tools |
| ARTG 2260 | Programming Basics |
| ARTG 3250 | Physical Computing |
| ARTG 3500 | Transmedia Design |
| ARTG 3461 | Service Design |
| ARTG 3463 | Experience Design 2 |
| GE 1110 | Engineering Design |
| GE 1111 | Engineering Problem Solving and |
| IE 2310 | Computation <br> Introduction to Industrial Engineering <br> and Recitation for IE 2310 |
| and IE 2311 | Narrative Basics |
| ARTD 2100 | Art and Design Special Topics |
| ARTE 3901 |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not open to students pursuing the BFA in Design.

## Required Courses

| ARTG 1250 | Design Process Context and Systems | 4 |
| :--- | :--- | ---: |
| ARTG 3462 | Experience Design 1 | 4 |
| ARTG 3463 | Experience Design 2 | 4 |
| Electives |  | $8-10$ |
| Complete two of the following: |  |  |
| ARTG 2260 | Programming Basics |  |
| ARTG 3250 | Physical Computing |  |
| ARTG 2400 | Interaction Design 1: Responsive |  |
| and ARTG 2401 | and Interaction Design Tools |  |
| ARTG 3500 | Transmedia Design |  |
| ARTG 3461 | Service Design |  |
| ARTD 2100 | Narrative Basics |  |
| ARTE 3901 | Art and Design Special Topics |  |

## GPA Requirement

2.500 GPA required in the minor

## Game Art, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000 level courses and above need to plan ahead in order to complete pre-requisite course(s) ahead of time.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.


| ARTD 2370 | Animation Basics <br> and ARTD 2371 <br> and Animation Tools | 5 |
| :--- | :--- | ---: |
| ARTF 1120 | Observational Drawing | 4 |
| ARTF 1122 | 2D Fundamentals: Surface and Drawing |  |
| and ARTF 1123 | and 2D Tools | 5 |
| ARTF 2220 | 4D Fundamentals: Sequence and <br> and ARTF 2221 | Drawing <br> and 4D Tools |
| Elective Course | 5 |  |
| Complete one of the following: |  |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation | 4 |
| ARTD 3473 | Animation for Games |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Media Arts program.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools | 5 |
| ARTF 1120 | Observational Drawing | 4 |
| Additional Courses |  |  |
| Complete two of the following: |  | 8 |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3473 | Animation for Games |  |
| Elective Course |  |  |
| Complete one of the following: |  | 4 |
| ARTD 2100 | Narrative Basics |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |
| GAME 2500 | Foundations of Game Design |  |

## GPA Requirement

2.500 GPA required in the minor

## Graphic and Information Design, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Any prerequisites should be taken before registering for 2000 level courses and above.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

| ARTF 1122 | 2D Fundamentals: Surface and Drawing <br> and ARTF 1123 <br> and 2D Tools | 5 |
| :--- | :--- | ---: |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 2250 | Typography 1 | 5 |
| and ARTG 2251 | and Type Tools |  |

## Electives

| Complete two of the following: |  |
| :--- | :--- |
| ARTF 2220 <br> and ARTF 2221 | 4D Fundamentals: Sequence and <br> Drawing <br> and 4D Tools |
| ARTH 2215 | History of Graphic Design |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3350 | Typography 2 |
| ARTG 3351 | Time-Based Design |
| ARTG 3450 | Graphic Design 2 |
| ARTG 3451 | Information Design 1 |
| ARTE 3901 | Art and Design Special Topics |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Design program.

## Required Courses

| ARTG 1250 | Design Process Context and Systems | 4 |
| :--- | :--- | ---: |
| ARTG 2250 <br> and ARTG 2251 | Typography 1 <br> Electives | 5 |
| and Type Tools |  |  |
| ARTG 2252 | Graphic Design 1 | 12 |
| ARTG 3250 | Physical Computing |  |
| ARTG 3350 | Typography 2 |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3450 | Graphic Design 2 |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 4554 | Typography 3 |  |
| ARTH 2215 | History of Graphic Design |  |
| ARTE 3901 | Art and Design Special Topics |  |

## GPA Requirement

2.500 GPA required in the minor

## Interaction Design, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Any prerequisites should be taken before registering for 2000 level courses and above.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

$\left.\begin{array}{llr}\text { ARTF 2223 } \\ \text { and ARTF 2224 }\end{array} \quad \begin{array}{ll}\text { 5D Fundamentals: Experience and } \\ \text { Drawing } \\ \text { and 5D Tools }\end{array}\right] 5$

| ARTG 2260 | Programming Basics |
| :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 |
| and CS 2501 | and Lab for CS 2500 |


| Elective |  |
| :--- | :--- |
| Complete one of the following: |  |
| ARTF 1122 2D Fundamentals: Surface and Drawing <br> and ARTF 1123 and 2D Tools |  |
| ARTG 2250 | Typography 1 |
| and ARTG 2251 | and Type Tools |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3462 | Experience Design 1 |
| ARTG 3700 | Interaction Design 2: Mobile |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Design program.

## Required Courses

| ARTG 1250 | Design Process Context and Systems | 4 |
| :--- | :--- | ---: |
| ARTG 2250  <br> and ARTG 2251 Typography 1 <br> and Type Tools  <br> ARTG 2400 Interaction Design 1: Responsive <br> and ARTG 2401 and Interaction Design Tools <br> Elective 5 <br> Complete two of the following: 5 <br> ARTG 2260 Programming Basics <br> ARTG 3451 Information Design 1 <br> ARTG 3462 Experience Design 1 <br> ARTG 3700 Interaction Design 2: Mobile <br> ARTE 3901 Art and Design Special Topics |  |  |

## GPA Requirement

2.500 GPA required in the minor

## Photography, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000 -level courses and above need to plan ahead in order to complete prerequisite course(s) ahead of time.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

| ARTF 1122 <br> and ARTF 1123 | 2D Fundamentals: Surface and Drawing <br> and 2D Tools | 5 |
| :--- | :--- | ---: |
| ARTD 2360 <br> and ARTD 2361 | Photo Basics <br> and Photo Tools | 5 |
| ARTD 3460 <br> Elective Courses <br> Complete two of the following: | Photography 1 | 4 |
| ARTD 4565 | Photography 2 |  |
| ARTD 4660 | Studio Photography |  |
| ARTD 4661 | Alternative Photographic Processes |  |
| ARTH 2212 | Survey of the Still and Moving Image | 8 |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Media Arts program.

| Required Courses |  | 5 |
| :--- | :--- | ---: |
| ARTD 2360 | Photo Basics |  |
| and ARTD 2361 | and Photo Tools | 4 |
| ARTD 3460 | Photography 1 | 4 |
| ARTD 4565 | Photography 2 | 8 |
| Elective Courses |  |  |
| Complete two of the following: |  |  |
| ARTD 4660 | Studio Photography |  |
| ARTD 4661 | Alternative Photographic Processes |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |

## GPA Requirement

2.500 GPA required in the minor

## Video Arts, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Any prerequisites should be taken before registering for 2000 level courses and above.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

## Required Courses

| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| :---: | :---: | :---: |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools | 5 |
| ARTD 3480 | Video: Sound and Image | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ARTD 3485 | Video Art |  |
| ARTD 5582 | Collaborative Video and Community Engagement |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |
| MSCR 3385 | Video: Story and Sequence |  |
| MSCR 4685 | Interactive Documentary |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Media Arts program.

| ARTD 2380 <br> and ARTD 2381 | Video Basics <br> and Video Tools | 5 |
| :--- | :--- | ---: |
| ARTD 3480 | Video: Sound and Image | 4 |
| ARTD 3485 | Video Art | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ARTD 4582 | Video in Context: Video and Social |  |
| ARTD 4682 | Change |  |
| MSCR 3385 | Video: Story and Sequence |  |
| MSCR 4685 | Interactive Documentary |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |

## GPA Requirement

2.500 GPA required in the minor

## Communication Studies

Website (http://www.northeastern.edu/camd/commstudies)
Dale A. Herbeck, PhD
Professor and Chair
204 Lake Hall
617.373.5517
617.373 .8533 (fax)

Angela Chin, Administrative Officer, commstudies@northeastern.edu
The Department of Communication Studies is committed to providing students with both the communication skills and the understanding of the communication process required to thrive in a complex and changing society. Majors are required to demonstrate a mastery of the fundamentals of effective communication, to learn the fundamentals of communication theory and practice, and to develop a distinct area of emphasis. Some of the more popular areas include argumentation and advocacy, organizational and health communication, international and intercultural communication, digital communication and social media, and media production. The curriculum is designed to enhance the understanding of human communication in a variety of contexts, to empower students to become informed and engaged citizens, and to provide the knowledge and skills required to live a rich personal and professional life.

## Academic Progression Standards

Departmental probation will result from a cumulative grade-point average below 2.000 . 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.

## Preapproved Template Program in Communication Studies

The Department of Communication Studies offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http:// www.northeastern.edu/registrar/major-2.html).

## Required Courses

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Arts (BA)

- Communication Studies (p. 89)
- Communication Studies and Media and Screen Studies (p. 91)
- Communication Studies and Sociology (p. 93)
- English and Communication Studies (p. 96)
- Human Services and Communication Studies (p. 99)
- Media Arts and Communication Studies (p. 100)
- Political Science and Communication Studies (p. 103)


## Bachelor of Science (BS)

- Computer Science and Communication Studies (p. 95)
- Music and Communication Studies with Concentration in Music Industry (p. 101)
- Political Science and Communication Studies (p. 105)


## Minors

- Communication Studies (p. 107)
- Media Production (p. 107)
- Oratory and Public Speaking (p. 107)
- Political Communication (p. 108)
- Professional Presentation (p. 108)
- Rhetoric (p. 108)
- Social Activism (p. 108)


## Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attributes EI, AD, SI, and ER are met through the major course requirements. In order to graduate, the student must meet ND, IC, FQ, and DD in their electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Communication Studies Major Requirements

| COMM 1000 | Communication Studies at Northeastern | 1 |
| :---: | :---: | :---: |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| COMM 2301 | Communication Research Methods | 4 |
| Foundation Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1210 | Persuasion and Rhetoric |  |
| COMM 1310 | Classical Foundations of Communication |  |
| COMM 1231 | Principles of Organizational Communication |  |
| COMM 1225 | Communication Theory |  |
| COMM 1255 | Communication in a Digital Age |  |
| Cluster Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1131 | Sex, Relationships, and Communication |  |
| COMM 2303 | Global and Intercultural Communication |  |
| COMM 2304 | Communication and Gender |  |
| COMM 2501 | Communication Law |  |
| COMM 2551 | Free Speech in Cyberspace |  |
| Writing-Intensive |  |  |
| Complete two writing-intensive courses in communication studies from the following list: |  | 8 |
| COMM 3201 | Health Communication |  |
| COMM 3230 | Interpersonal Communication |  |
| COMM 3304 | Communication and Inclusion |  |
| COMM 3320 | Political Communication |  |
| COMM 3331 | Argumentation and Debate |  |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |  |
| COMM 3415 | Communication Criticism |  |
| COMM 3500 | Environmental Issues, Communication, and the Media |  |
| COMM 3501 | Free Speech: Law and Practice |  |
| COMM 3530 | Communication and Sexualities |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| COMM 3610 | Communication, Politics, and Social Change |  |
| COMM 4131 | Sex and Interpersonal Communication |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4535 | Nonverbal Social Interaction |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology |  |
| COMM 4631 | Crisis Communication and Image Management |  |
| COMM 4901 | Seminar in Communications |  |
| COMM 4918 | Special Topics in Communication Studies |  |
| Capstone |  |  |


| Complete one of the following: |  |
| :--- | :--- |
| COMM 4102 | Health Communication Campaigns |
| COMM 4530 | Communication and Quality of Life |
| COMM 4533 | Consultation Skills |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4608 | Strategic Communication Capstone |
| COMM 4625 | Online Communities |
| COMM 4901 | Seminar in Communications |

## Communication Studies Electives

Complete five communication studies courses not used to 20 satisfy requirements above.

## Communication Studies Major Grade Requirement

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Communication Studies Major Credit Requirement

Complete 52 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Sample Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| COMM 1101 | 4 ENGW 1111 | 4 Vacation | 0 Vacation | 0 |
| COMM 1112 | 4 Communicatii <br> studies <br> foundation <br> course | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  |  |
| COMM 1000 | 1 Elective | 4 |  | 0 |
| Elective | 4 | 16 | 0 | 0 |



Year 3

| Fall | Hours Spring Hour | Hours Summer 1 Hour | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Communication studies elective | 4 Communication studies elective | $\text { n } 4 \text { Co-op }$ | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | Foreign language core course | 4 |  |  |
|  | ENGW 3315 | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring H | Hours Summer 1 H | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Communication studies writingintensive | n 4 Communication studies elective | $\text { n } 4 \text { Co-op }$ | 0 |
|  | Communicati, studies elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 Communication | 4 |
| studies |  |  |
| capstone | 4 |  |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 130

## Sample Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| COMM 1101 | 4 <br> Communication <br> studies <br> foundation <br> course | 4 Vacation | 0 Vacation | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | Hours



| MSCR 4622 | Special Topics in Media and Screen <br> Studies |
| :--- | :--- |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| CINE 3389 | Screenwriting |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |

## Communication Studies Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| COMM 1000 | Communication Studies at Northeastern | 1 |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 or COMM 2301 | Public Speaking <br> Communication Research Methods | 4 |
| Foundation Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1210 | Persuasion and Rhetoric |  |
| COMM 1231 | Principles of Organizational Communication |  |
| COMM 1225 | Communication Theory |  |
| COMM 1255 | Communication in a Digital Age |  |
| COMM 1310 | Classical Foundations of Communication |  |

## Cluster Course

| Complete one of the following: |  |
| :--- | :--- |
| COMM 1131 | Sex, Relationships, and Communication |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| Writing-Intensive |  |
| Complete two of the following: |  |
| COMM 3201 | Health Communication |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3500 | Environmental Issues, Communication, <br> and the Media |


| COMM 3530 | Communication and Sexualities |
| :--- | :--- |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| COMM 4131 | Sex and Interpersonal Communication |
| COMM 4533 | Consultation Skills <br> COMM 4534 |
| Organizational Communication Training <br> and Development |  |
| COMM 4535 | Nonverbal Social Interaction |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4605 | Youth and Communication Technology <br> COMM 4631 |
| COMM 4901 Communication and Image |  |
| COMM 4918 | Seminar in Communications <br> Special Topics in Communication <br> Studies |

## Communication Electives

Complete three COMM courses. ..... 12
Integrative Requirement

| Code <br> Integrative Course | Title | Hours |
| :--- | :--- | ---: |
| COMM 4602 <br> or CINE 3500 | Contemporary Rhetorical Theory <br> Film Theory | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| COMM 1000 | 1 MSCR 2220 | 4 Elective | 4 Vacation |  |
| MSCR 1220 | $\begin{aligned} & 4 \text { COMM } 1112 \\ & \text { or } 2301 \end{aligned}$ | 4 Elective | 4 |  |
| COMM 1101 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 16 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MSCR <br> elective | 4 Co-op | Co-op | Elective | 4 |
| MSCR <br> elective | 4 |  | Elective | 4 |


| COMM <br> foundation <br> course | 4 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| COMM <br> cluster <br> course | 4 |  |  |  |
| EEAM 2000 | 1 | 0 | 0 | 8 |
|  | 17 |  |  |  |


| Year 3 |  | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Fall |  |  |  |  |
| MSCR <br> elective | 4 Co-op | Co-op | Vacation |  |
| COMM <br> elective | 4 |  |  |  |
| COMM <br> writing- <br> intensive | 4 |  |  |  |
| MSCR <br> elective | 4 | 0 | 0 | 0 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| COMM elective | 4 Co-op | Co-op | Vacation |  |
| COMM writingintensive | 4 |  |  |  |
| MSCR <br> advanced <br> elective | 4 |  |  |  |
| MSCR elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Integrative <br> course | 4 MSCR 4623 | 4 |
| COMM <br> elective | 4 Elective | 4 |
| MSCR <br> advanced <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 130

| Sample Four Years, No Co-ops |  |  |
| :--- | :---: | ---: |
| Year 1 |  |  |
| Fall | Hours Spring | Hours |
| COMM 1000 | 1 MSCR 2220 | 4 |
| MSCR 1220 | 4 COMM 1112 or |  |
|  | 2301 | 4 |
| COMM 1101 | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 | 16 |

Year 2

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| MSCR elective | 4 COMM cluster course | 4 |
| MSCR elective | 4 MSCR elective | 4 |
| COMM foundation course | 4 MSCR elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Year 3 |  |  |
| Fall | Hours Spring | Hours |
| COMM elective | 4 COMM elective | 4 |
| COMM writingintensive | 4 COMM writingintensive | 4 |
| MSCR elective | 4 MSCR advanced elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| COMM elective | 4 MSCR 4623 | 4 |
| Integrative course | 4 Elective | 4 |
| MSCR advanced | 4 Elective | 4 |
| elective | 4 Elective | 4 |
| Elective | 16 | 16 |

Total Hours: 129

## Communication Studies and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Communication Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Communications Studies Common Requirements |  |  |
| COMM 1000 | Communication Studies at <br> Northeastern | 1 |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |

Foundation Course

| Complete one of the following: |  |
| :--- | :--- |
| COMM 1210 | Persuasion and Rhetoric |
| COMM 1310 | Classical Foundations of <br> Communication |
| COMM 1231 | Principles of Organizational <br> Communication |
| COMM 1225 | Communication Theory |
| COMM 1255 | Communication in a Digital Age |
| Cluster Course |  |
| Complete one of the following: |  |
| COMM 1131 | Sex, Relationships, and Communication |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

Writing-Intensive Courses
Complete two of the following:
COMM 3201 Health Communication
COMM 3230 Interpersonal Communication
COMM 3304 Communication and Inclusion
COMM $3320 \quad$ Political Communication
COMM 3331 Argumentation and Debate
COMM 3414 Great Speakers and Speeches 2, 1930Present
COMM 3415 Communication Criticism

COMM $3500 \quad$| Environmental Issues, Communication, |
| :--- |
| and the Media |

COMM $3501 \quad$ Free Speech: Law and Practice
COMM 3530 Communication and Sexualities
COMM 3532 Theories of Conflict and Negotiation
COMM 3610 Communication, Politics, and Social Change
COMM 4131 Sex and Interpersonal Communication
COMM $4533 \quad$ Consultation Skills

COMM 4534 Organizational Communication Training and Development
COMM 4535 Nonverbal Social Interaction
COMM 4602 Contemporary Rhetorical Theory
COMM $4605 \quad$ Youth and Communication Technology
COMM 4631 Crisis Communication and Image Management
COMM 4901 Seminar in Communications
COMM 4918 Special Topics in Communication Studies
Communication Studies Electives
Complete three COMM courses.

## Sociology Requirements

A grade of C or higher is required in sociology requirements.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Sociology | Courses |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |

SOCL 2321
Introductory Electives
Complete two of the following:

| SOCL 1120 <br> and SOCL 1121 | Society and Health <br> and Society and Health Recitation |
| :--- | :--- |
| SOCL 1220 | Sociology of Boston |
| SOCL 1228 | Social Problems |
| SOCL 1235 | Social Psychology |
| SOCL 1241 | Sociology of Violence |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1245 | Sociology of Poverty |
| SOCL 1247 | Urban Social Problems |
| SOCL 1255 | Sociology of the Family |
| SOCL 1256 | Violence in the Family |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1275 | Social Stratification |
| SOCL 1283 | Globalization and Social Change |
| SOCL 1285 | Deviant Behavior and Social Control |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |

## Intermediate-Level Elective

Complete one of the following:

| SOCL 2205 | Law and Social Justice |
| :--- | :--- |
| SOCL 2268 | Social Movements |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 2358 | Current Issues in Cities and Suburbs |
| SOCL 2450 | Class, Power, and Social Change |
| SOCL 3402 | Feminist Perspectives on Society |
| SOCL 3406 | Class, Crime, and the Legal System |
| SOCL 3407 | The Immigrant Experience: Ethnicity, |
|  | Race, and Inequality in America |
| SOCL 3440 | Sociology of Human Service <br> Organizations |
| SOCL 3408 | Sociology of Organizations |
| SOCL 3441 | Sociology of Health and Illness |
| SOCL 3451 | Privilege |
| SOCL 3455 | Seminar in Urban Sociology |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 3487 | Applied Sociology: Practice and Theory |

## Advanced-Level Elective

Complete one of the following: 4

| SOCL 4513 | Political Sociology |
| :--- | :--- |
| SOCL 4514 | "The Wire" and the Study of Urban <br> Inequalities |
| SOCL 4518 | Law and Social Issues |
| SOCL 4520 | Race, Class, and Gender |
| SOCL 4523 | Sexualities |
| SOCL 4528 | Computers and Society |
| SOCL 4535 | European Union: Social and Political |
| SOCL 4580 | Special Topics in Sociology |
| SOCL 4992 | Directed Study |

## Capstone and Integrative Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Integrative Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 3320 | Political Communication |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| SOCL 1246 | Environment and Society |  |
| SOCL 1297 | Sociology of Popular Culture |  |
| Capstone/Senior Seminar Option |  |  |
| Complete one of the following two options: |  | 8 |
| Communications Capstone Option |  |  |
| Complete one COMM course and one SOCL course from the following list: |  |  |
| COMM 4102 | Health Communication Campaigns |  |
| COMM 4530 | Communication and Quality of Life |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4603 | Advocacy Workshop |  |
| COMM 4625 | Online Communities |  |
| SOCL 3000 to | L 4999 |  |
| Sociology Senior Seminar Option |  |  |
| Complete SOCL 4600 and one COMM course from the following list: |  |  |
| SOCL 4600 | Senior Seminar |  |
| COMM 3000 t | MM 4999 |  |

## Communications Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Communication Studies and Sociology Combined-Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

## Computer Science and Communication Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| Computer Science Fundamental Courses |  |  |
| A grade of C - or higher is required: |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Upper-Level Requirements |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4550 | Web Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Elective Courses |  |  |
| Complete two cou | s from the following ranges: | 8 |
| IS 2000 to IS 5 | but not IS 4900 |  |
| CS 2600 to CS | 9 but not CS 5010 |  |
| Co-op Preparation |  |  |
| $\text { CS } 1210$ <br> or EEAM 2000 | Computer Science/Information Science Overview 2: Co-op Preparation <br> Professional Development for Co-op | 1 |

## Mathematics Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

## Communication Studies Courses

Code Title Hours

Communication Studies Common Requirements

| COMM 1101 | Introduction to Communication Studies | 4 |
| :---: | :--- | :---: |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |

Foundation Course
Complete one of the following: 4
COMM $1210 \quad$ Persuasion and Rhetoric
COMM 1225 Communication Theory
COMM 1231 Principles of Organizational Communication
COMM 1255 Communication in a Digital Age
COMM 1310 Classical Foundations of Communication

## Cluster Course

Complete one of the following:
4

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |


| COMM 2551 | Free Speech in Cyberspace |  |
| :---: | :---: | :---: |
| Writing-Intensive |  |  |
| Complete two of the following: |  | 8 |
| COMM 3201 | Health Communication |  |
| COMM 3230 | Interpersonal Communication |  |
| COMM 3304 | Communication and Inclusion |  |
| COMM 3320 | Political Communication |  |
| COMM 3331 | Argumentation and Debate |  |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |  |
| COMM 3415 | Communication Criticism |  |
| COMM 3500 | Environmental Issues, Communication, and the Media |  |
| COMM 3501 | Free Speech: Law and Practice |  |
| COMM 3530 | Communication and Sexualities |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| COMM 3610 | Communication, Politics, and Social Change |  |
| COMM 4131 | Sex and Interpersonal Communication |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4535 | Nonverbal Social Interaction |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology |  |
| COMM 4631 | Crisis Communication and Image Management |  |
| COMM 4901 | Seminar in Communications |  |
| COMM 4918 | Special Topics in Communication Studies |  |
| Communication Studies Electives |  |  |
| Complete three | es from the following range: ${ }^{1}$ | 12 |

## COMM 1131 to COMM 4996

1 Special Topics in Communication Studies (COMM 4912), Junior/ Senior Honors Project 1 (COMM 4970), Junior/Senior Honors Project 2 (COMM 4971), and Research (COMM 4991) are excluded.

## Writing Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines |  |  |
| Choose one of the following: |  | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions |  |
| ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |
| COMM 3409 | Advocacy Writing ${ }^{1}$ |  |
| 2 If Advocacy Writing (COMM 3409) is selected it will also satisfy a communication studies elective requirement. One additional general elective will be then required in its place. |  |  |

## Computing and Social Issues

## Code Title

Hours
Complete one of the following:

| PHIL 1145 | Technology and Human Values |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Required General Electives

Code Title Hours

Complete eight general electives. 32

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and COMM courses

## Program Requirement

134 total semester hours required

## English and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Requirements

Code Title Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from the lists below must be numbered 3000-4999.

## Foundational Courses

| ENGL 1400 | Introduction to Literary Studies |
| :---: | :---: |
| ENGL 1700 | Global Literature to 15004 |
| $\begin{aligned} & \text { ENGL } 1160 \\ & \text { or ENGL } 1410 \end{aligned}$ | Introduction to Rhetoric Introduction to Writing Studies |
| Diversity |  |
| Complete one of the following courses. This course may also be used to fulfill an additional English requirement below: |  |
| ENGL 2296 | Early African-American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |

Pre-Nineteenth-Century Literature

| Complete one of the following: |  |
| :---: | :--- |
| ENGL 1600 | Introduction to Shakespeare |
| ENGL 2200 | The Bible |

## Nineteenth-Century Literature <br> Complete one of the following:

| ENGL 2260 | Romantic Poetry |
| :--- | :--- |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |

ENGL 2340 American Realism
ENGL 3619 Emerson and Thoreau
ENGL $3720 \quad$ Nineteenth-Century Major Figure
ENGL $4040 \quad$ Topics in 19th-Century Literatures
Twentieth- and Twenty-First-Century Literature
Complete one of the following: 4

| ENGL 2290 | Twentieth-Century British Literature |
| :--- | :--- |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century <br> Major Figure |
| ENGL 4060 | Topics in 20th- and 21st-Century <br> Literatures |

Theories and Methods
Complete one of the following: 4
ENGL 1160 Introduction to Rhetoric
ENGL 1410 Introduction to Writing Studies
ENGL 2830 Literary Theory
ENGL 3325 Rhetoric of Law
ENGL 3340 Technologies of Text
ENGL $3381 \quad$ The Practice and Theory of Teaching
ENGL 4400 Opening the Archive
ENGL 4110 Topics in Rhetoric and Writing Studies
ENGL 4410 Research in Rhetoric and Writing
LING 1150 Introduction to Language and Linguistics
LING 2350 Linguistic Analysis
LING 3450 Syntax
LING 3452 Semantics
LING $3454 \quad$ History of English
LING 3456 Language and Gender
LING 3458 Topics in Linguistics
Comparative Literature
Complete one of the following: 4
ENGL 1120 Trouble in Utopia
ENGL 1130 Animals, Objects, Humans
ENGL 1450 Reading and Writing in the Digital Age
ENGL 1500 British Literature to 1800
ENGL 1501 British Literature 1800 to Present
ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present
$\qquad$

| ENGL 2370 | The Modern Short Story |  |
| :---: | :---: | :---: |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| Writing |  |  |
| Complete one of the | following: | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| ENGL 4710 or ENGL 4720 | Capstone Seminar Capstone Project | 4 |



Communication Studies Common Requirements
COMM 1101 Introduction to Communication Studies 4
COMM 1112 Public Speaking 4
or COMM 2301 Communication Research Methods
Foundation Course
Complete one of the following: 4

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1310 | Classical Foundations of <br> Communication |
| COMM 1231 | Principles of Organizational <br> Communication |
| COMM 1255 | Communication Theory |

## Cluster Course

Complete one of the following:

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

Writing-Intensive Courses
Complete two of the following:

| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- |
|  | Present |
| COMM 3415 | Communication Criticism |


| COMM 3500 | Environmental Issues, Communication, |
| :--- | :--- |
| and the Media |  |


| COMM 3501 | Free Speech: Law and Practice |
| :--- | :--- |
| COMM 3530 | Communication and Sexualities |
| COMM 3532 | Theories of Conflict and Negotiation |

COMM 3610 Communication, Politics, and Social Change
COMM 4131 Sex and Interpersonal Communication

COMM 4533 Consultation Skills

| COMM 4534 | Organizational Communication Training <br> and Development |
| :--- | :--- |

COMM 4535 Nonverbal Social Interaction

| COMM 4602 | Contemporary Rhetorical Theory |
| :--- | :--- |
| COMM 4605 | Youth and Communication Technology |
| COMM 4631 | Crisis Communication and Image <br> Management |

COMM 4901 Seminar in Communications
COMM 4918 Special Topics in Communication Studies

## Communication Studies Electives

Complete three additional COMM courses. 12

## Integrative Requirement

Code Title Hours

## Integrative English Course

Complete one of the following:
ENGL 3325 Rhetoric of Law ENGL 3340 Technologies of Text ENGL 3381 The Practice and Theory of Teaching Writing

## Integrative Communication Studies Course

| COMM 3415 | Communication Criticism | 4 |
| :---: | :--- | :---: |
| or COMM 4602 | Contemporary Rhetorical Theory |  |

## Communication Studies Grade Requirements

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Program Requirement

128 total semester hours required

## Human Services and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Human Services Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Research |  |  |
| Complete one of the following: |  | 4 |
| HUSV 3700 | Research Methods for Human Services |  |
| SOCL 2321 | Research Methods in Sociology |  |
| Organization |  |  |
| SOCL 3440 | Sociology of Human Service Organizations | 4 |
| Internship |  |  |
| HUSV 4994 | Human Services Internship | 6 |
| Human Services Electives |  |  |
| Complete two a | nal HUSV courses. | 8 |

Communication Studies Requirements
Code Title Hours

| Communication Studies Common Requirements |  |  |
| :--- | :--- | ---: |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |
| Foundation Course |  |  |
| Complete one of the following: | 4 |  |
| COMM 1210 | Persuasion and Rhetoric |  |
| COMM 1225 | Communication Theory |  |
| COMM 1231 | Principles of Organizational <br> Communication |  |
| COMM 1255 | Communication in a Digital Age <br> COMM 1310 | Classical Foundations of <br>  |

## Cluster Course

Complete one of the following:

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

Writing-Intensive Courses
Complete two of the following:

| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| COMM 4131 | Sex and Interpersonal Communication |
| COMM 4535 | Nonverbal Social Interaction |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4605 | Youth and Communication Technology <br> COMM 4901Seminar in Communications |
| COMM 4918 | Special Topics in Communication <br> Studies |

## Communication Studies Electives

Complete three of the following: 12

| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |
| :--- | :--- |
| COMM 1412 | Social Movement Communication |
| COMM 1414 | Great Speakers and Speeches 1, 1630- <br> 1930 |
| COMM 1511 | Communication and Storytelling |
| COMM 1990 | Elective |
| COMM 2105 | Social Networks |
| COMM 2312 | Voice and Articulation |
| COMM 2350 | Producing for the Entertainment <br> Industry |
| COMM 2402 | Presentation, Style, and Professional <br> Communication |

COMM 2450 Sound Production for Digital Media
COMM 2451 Sports Broadcasting
COMM $2454 \quad$ Broadcast Management and Programming
COMM 2531 Application of Organizational Communication

COMM 2990 Elective
COMM 3306 International Communication Abroad
COMM 3409 Advocacy Writing
COMM 3451 Advertising Practices
COMM 3534 Group Communication
COMM 3550 Television Field Production
COMM 3650 Television Studio Production
COMM 3990 Elective
COMM 4630 Assessment Technique and Planning

| COMM 4650 | Digital Editing for TV |
| :--- | :--- |
| COMM 4750 | Advanced Digital Editing for TV and <br> Film |
| COMM 4916 | Organizational Communication <br> Practicum |
| COMM 4940 | Special Topics in Media Production |
| COMM 4990 | Elective |
| COMM 4992 | Directed Study |
| COMM 4993 | Independent Study |
| COMM 4994 | Internship in Communication |
| COMM 4996 | Experiential Education Directed Study |

## Capstone

| Code | Title | Hours |
| :---: | :---: | :---: |
| Communications Capstone Option |  |  |
| Complete one of the following: |  | 4 |
| COMM 4102 | Health Communication Campaigns |  |
| COMM 4530 | Communication and Quality of Life |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4603 | Advocacy Workshop |  |
| COMM 4625 | Online Communities |  |
| Complete one a | nal HUSV elective. | 4 |
| Human Services Capstone Option |  |  |
| HUSV 4700 | Senior Seminar in Human Services | 4 |
| Complete one cour | from the following range: | 4 |

COMM 3000 to COMM 4999

## Integrative Course

| Code | Title |
| :--- | :--- |
| HUSV 5200 | Strategic Communications for |
|  | Nonprofit Organizations |

Hours

## Program Requirement

128 total semester hours required

## Communication Studies Major Grade Requirement

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Media Arts and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media Arts Requirements

Code Title Hours

Art and Design at Northeastern
ARTF 1000 Art and Design at Northeastern 1
Art and Design Foundations
ARTF 1122 2D Fundamentals: Surface and Drawing 5
and ARTF 1123 and 2D Tools
ARTF 2220 4D Fundamentals: Sequence and 5
and ARTF 2221 Drawing and 4D Tools

Drawing Fundamentals

| ARTF 1120 | Observational Drawing | 4 |
| :---: | :--- | :--- |
| or ARTF 1121 | Conceptual Drawing |  |

Art and Design History
ARTH $2210 \quad$ Modern Art and Design History 4
ARTH 2212 Survey of the Still and Moving Image 4
Project Required Course
ARTD $4530 \quad$ Media Arts Degree Project 1
Media Art Basics Electives
Complete two of the following: 10

| ARTD 2370 | Animation Basics |
| :--- | :--- |
| and ARTD 2371 | and Animation Tools |
| ARTD 2360 | Photo Basics |
| and ARTD 2361 | and Photo Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |

Art and Design Electives

| Complete two of th | llowing: | 8-10 |
| :---: | :---: | :---: |
| ARTF 1120 | Observational Drawing |  |
| ARTF 1121 | Conceptual Drawing |  |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |
| ARTD 2100 | Narrative Basics |  |
| ARTG 2300 | Business Literacy for Design and Media |  |
| ARTE 2500 | Art and Design Abroad: Studio |  |
| ARTE 2501 | Art and Design Abroad: History |  |
| ARTE 4901 | Special Topics in Art and Design Studio |  |
| ARTE 3901 | Art and Design Special Topics |  |
| ARTE 4902 | Special Topics in Art and Design History |  |
| ARTH 1110 | Global Art and Design History: Ancient to Medieval |  |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |  |
| ARTH 2211 | Contemporary Art and Design History |  |
| ARTH 2213 | Nineteenth-Century Art |  |
| ARTH 2214 | American Art |  |
| ARTH 4500 | Arts of the African Diaspora |  |


| ARTH 5100 | Contemporary Art Theory and Criticism |
| :--- | :--- |
| ARTH 5200 | Issues in Contemporary Art |
| ARTH 5300 | Postmodernism: Theory and Practice in <br> the Visual Arts |
| ARTH 5400 | Contemporary Visual Culture |
| ARTD 2360 | Photo Basics |
| and ARTD 2361 | and Photo Tools |
| ARTD 2370 | Animation Basics |
| and ARTD 2371 | and Animation Tools |
| ARTD 2380 | Video Basics |
| and ARTD 2381 | and Video Tools |
| ARTD 3460 | Photography 1 |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3473 | Animation for Games |
| ARTD 3480 | Video: Sound and Image |
| ARTD 4565 | Photography 2 |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTD 4660 | Studio Photography |
| ARTD 4661 | Alternative Photographic Processes |
| ARTD 4670 | Media Arts Degree Project 2 |
| ARTS 2330 | Sculpture Basics |
| ARTS 2340 | Painting Basics |
| ARTS 2341 | Figure Drawing |
| ARTS 3449 | Drawing in Mixed Media |

## Communication Studies Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |
| Foundation Course |  | 4 |
| Complete one of the following: |  |  |
| COMM 1210 | Persuasion and Rhetoric |  |
| COMM 1225 | Communication Theory |  |
| COMM 1231 | Principles of Organizational <br> Communication |  |
| COMM 1255 | Communication in a Digital Age |  |
| COMM 1310 | Classical Foundations of <br> Communication |  |

## Cluster Course

Complete one of the following:

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

## Writing-Intensive Courses

Complete two of the following:

| COMM 3304 | Communication and Inclusion |
| :--- | :--- |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3500 | Environmental Issues, Communication, <br> and the Media |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3530 | Communication and Sexualities |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| COMM 4131 | Sex and Interpersonal Communication |
| COMM 4533 Consultation Skills |  |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4535 | Nonverbal Social Interaction <br> COMM 4602 |
| Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology <br> COMM 4631 |
| Crisis Communication and Image <br> Management |  |
| COMM 4901 | Seminar in Communications <br> COMM 4918 |
| Special Topics in Communication <br> Studies |  |

## Communication Studies Electives

Complete three COMM courses.12

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Bridge/Integrative Requirement |  |  |
| COMM 3415 | Communication Criticism | 4 |

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Program Requirement

128 total semester hours required

Music and Communication Studies With Concentration in Music Industry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Music Industry Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| MUSC 1000 | Music at Northeastern | 1 |
| Music Theory Requirement |  |  |
| MUSC 1201 | Music Theory 1 | 4 |


| Introductory Music Industry |  |
| :--- | :--- |
| MUSI 1230 | Introduction to Music Industry |

Historical Traditions
Complete two of the following:
8

| MUSC 2311 | Historical Traditions: America |
| :--- | :--- |
| MUSC 2312 | Historical Traditions: Classical |
| MUSC 2313 | Historical Traditions: World |
| MUSC 2316 | Historical Traditions: History of the <br> Music Industry |
| MUSC 3550 | Historical Traditions: Special Topics |
| MUSC 3560 | Historical Traditions: Music since 1900 |


| Music Industry Electives |  |
| :--- | :--- |
| Complete two of the following: | 8 |


| MUSC 2210 | Songwriting 1 |
| :--- | :--- |
| MUSI 2231 | Music Licensing for Media |
| MUSI 2232 | Music Recording 1 |
| MUSI 2233 | Music in the Online and Mobile <br>  |


| MUSI 2330 | Performing Arts Administration |
| :--- | :--- |
| MUSI 2332 | Music Publishing and Royalties |
| MUSI 2341 | Music Supervision 1 |
| MUSI 2540 | Special Topics in Music Industry |
| MUSI 3332 | Artist Management |
| MUSI 3333 | The Record Industry |
| MUSI 3334 | Music Products Industry |
| MUSI 3335 | Copyright Law for Musicians |
| MUSC 3337 | Writing about Music |
| MUSI 3338 | Music Industry Marketing and <br>  |


| MUSI 3340 | Concert Promotion and Venue <br> Management |
| :--- | :--- |
| MUSI 3401 | Hip Hop in the Music Industry |
| MUSI 4530 | Music Entrepreneurship |
| MUST 1220 | Introduction to Music Technology |
| MUST 3421 | Digital Audio Processing |
| Business Electives |  |
| Complete two courses in the following subject areas: |  |

ACCT, BUSN, ENTR, FINA, HRMG, INTB, MGMT, ORGB,
MGSC, MISM, MKTG, SCHM, and STRT

## Communication Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |
| Foundation Course |  | 4 |
| Complete one of the following: |  |  |


| COMM 1210 | Persuasion and Rhetoric |  |
| :---: | :---: | :---: |
| COMM 1310 | Classical Foundations of Communication |  |
| COMM 1231 | Principles of Organizational Communication |  |
| COMM 1225 | Communication Theory |  |
| COMM 1255 | Communication in a Digital Age |  |
| Cluster Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1131 | Sex, Relationships, and Communication |  |
| COMM 2303 | Global and Intercultural Communication |  |
| COMM 2304 | Communication and Gender |  |
| COMM 2501 | Communication Law |  |
| COMM 2551 | Free Speech in Cyberspace |  |
| Writing-Intensive Courses |  |  |
| Complete two of the following: |  | 8 |
| COMM 3201 | Health Communication |  |
| COMM 3230 | Interpersonal Communication |  |
| COMM 3304 | Communication and Inclusion |  |
| COMM 3320 | Political Communication |  |
| COMM 3331 | Argumentation and Debate |  |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |  |
| COMM 3415 | Communication Criticism |  |
| COMM 3500 | Environmental Issues, Communication, and the Media |  |
| COMM 3501 | Free Speech: Law and Practice |  |
| COMM 3530 | Communication and Sexualities |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| COMM 3610 | Communication, Politics, and Social Change |  |
| COMM 4131 | Sex and Interpersonal Communication |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4535 | Nonverbal Social Interaction |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology |  |
| COMM 4631 | Crisis Communication and Image Management |  |
| COMM 4901 | Seminar in Communications |  |
| COMM 4918 | Special Topics in Communication Studies |  |

Communication Studies Electives
Complete three COMM courses.

## Integrative Requirement

Complete one of the integrative options below. If a communication studies course is taken, an additional music course, numbered 2000 or higher, is required.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Music Option |  |  |
| MUSI 4601 | Seminar in Music Industry | 4 |

## Communication Studies Option

Complete two of the following courses. One communication studies course is required:
COMM 4608 Strategic Communication Capstone or COMM 4625 Online Communities
MUSC 2000 to MUSC 5999
MUSI 2000 to MUSI 5999
MUST 2000 to MUST 5999

## Communication Studies Major Grade Requirement

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Program Requirement

128 total semester hours required

## Political Science and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

or COMM 2301 Communication Research Methods

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 104).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Public Policy


## Communication Studies Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Courses in Political Communication |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| COMM 1210 | Persuasion and Rhetoric | 4 |

Communication Studies Electives
Complete six of the following: 24

| COMM 1231 | Principles of Organizational Communication |
| :---: | :---: |
| COMM 1310 | Classical Foundations of Communication |
| COMM 1331 | Legal Argumentation, Advocacy, and Citizenship |
| COMM 1412 | Social Movement Communication |
| COMM 1414 | Great Speakers and Speeches 1, 16301930 |
| COMM 2301 | Communication Research Methods |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| COMM 3201 | Health Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3331 | Argumentation and Debate |
| COMM 3409 | Advocacy Writing |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |
| COMM 3415 | Communication Criticism |
| COMM 3451 | Advertising Practices |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3500 | Environmental Issues, Communication, and the Media |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social Change |
| COMM 4102 | Health Communication Campaigns |
| COMM 4533 | Consultation Skills |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| COMM 4631 | Crisis Communication and Image Management |
| COMM 4901 |  |

COMM 4901 Seminar in Communications

| COMM 4918 | Special Topics in Communication <br> Studies |
| :--- | :--- |
| COMM 4992 | Directed Study |
| COMM 4994 | Internship in Communication |

## Integrative Requirements

| Code <br> Integrative Courses | Title | Hours |
| :--- | :--- | ---: |
| POLS 3320 | Politics and Mass Media | 4 |
| or COMM 3320 | Political Communication | 4 |
| POLS 2333 | Politics and Film | 4 |

Capstone Requirement
Complete one of the following. This course also counts 4
toward the political science or communication studies elective requirement:

| COMM 4102 | Health Communication Campaigns |
| :--- | :--- |
| COMM 4530 | Communication and Quality of Life |
| COMM 4533 | Consultation Skills |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Political Science and Communication Studies Combined-

 Major Credit RequirementComplete 72 semester hours in the major.

## Program Requirement

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.

Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |


| CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS |  |
| :--- | :--- | :--- |
| Code | Title Hours |

Core Course
POLS $3415 \quad$ Ethnic Political Violence 4
or POLS $3418 \quad$ Nationalism

Electives
Complete three of the following: 12

| POLS 2333 | Politics and Film |
| :--- | :--- |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |


| POLS 2385 | U.S. Health and Welfare Policy |
| :--- | :--- |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Political Science and Communication Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Political Science Major Requirements
Code Title Hours

| Core Courses in Political Science |  |  |
| :--- | :--- | :--- |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |

Political Thought
Complete one of the following: 4

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Upper-Division Electives
Complete two courses from the following range: 8
POLS 3300 to POLS 5999

## Political Science Electives

Complete two courses from the following range: 8
POLS 2000 to POLS 5999

## Methodology

POLS 2399 Research Methods in Political Science 4

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 106).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Public Policy


## Communication Studies Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Courses in Political Communication |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| COMM 1210 | Persuasion and Rhetoric | 4 |

Communication Studies Electives
Complete six of the following: 24

| COMM 1231 | Principles of Organizational Communication |
| :---: | :---: |
| COMM 1310 | Classical Foundations of Communication |
| COMM 1331 | Legal Argumentation, Advocacy, and Citizenship |
| COMM 1412 | Social Movement Communication |
| COMM 1414 | Great Speakers and Speeches 1, 16301930 |
| COMM 2301 | Communication Research Methods |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| COMM 3201 | Health Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3331 | Argumentation and Debate |
| COMM 3409 | Advocacy Writing |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |
| COMM 3415 | Communication Criticism |
| COMM 3451 | Advertising Practices |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3500 | Environmental Issues, Communication, and the Media |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social Change |
| COMM 4102 | Health Communication Campaigns |
| COMM 4533 | Consultation Skills |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| COMM 4631 | Crisis Communication and Image Management |
| COMM 4901 | Seminar in Communications |
| COMM 4918 | Special Topics in Communication Studies |
| COMM 4992 | Directed Study |
| COMM 4994 | Internship in Communication |

## Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Courses |  |  |
| POLS 3320 | Politics and Mass Media | 4 |


| or COMM 3320 | Political Communication |  |
| :---: | :---: | :---: |
| POLS 2333 | Politics and Film | 4 |
| Capstone Requirement |  |  |
| Complete one of th toward the politica elective requireme | ollowing. This course also counts cience or communication studies | 4 |
| COMM 4102 | Health Communication Campaigns |  |
| COMM 4530 | Communication and Quality of Life |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4603 | Advocacy Workshop |  |
| COMM 4625 | Online Communities |  |
| POLS 4701 | Political Science Senior Capstone |  |
| POLS 4703 | Senior Thesis |  |

## Political Science and Communication Studies CombinedMajor Credit Requirement

Complete 72 semester hours in the major.

## Program Requirements

| 128 total semester hours required |  |  |
| :---: | :---: | :---: |
| Concentrations |  |  |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

## CONCENTRATION IN CAMPAIGNS AND ELECTIONS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be |  |  |
| substituted in place of POLS 4947. | 4 |  |
| POLS 3160 | Campaign Strategy | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an
additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |


| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

CONCENTRATION IN PUBLIC POLICY
Code $\quad$ Title Hours

| Core Requirement |  |  |
| :--- | :--- | ---: |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |

## Communication Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| COMM 1101 | Introduction to Communication Studies | 4 |
| :---: | :---: | :---: |
| COMM 1112 | Public Speaking | 4 |
| Foundation Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1210 | Persuasion and Rhetoric |  |
| COMM 1231 | Principles of Organizational Communication |  |
| COMM 1225 | Communication Theory |  |
| COMM 1255 | Communication in a Digital Age |  |
| COMM 1310 | Classical Foundations of Communication |  |

## Elective Courses

| Complete three of the following: |  |
| :--- | :--- |
| COMM 1131 Sex, Relationships, and Communication |  |
| COMM 1210 | Persuasion and Rhetoric |
| COMM 1225 | Communication Theory |
| COMM 1231 to COMM 2304 |  |
| COMM 2312 | Voice and Articulation |
| COMM 2402 | Presentation, Style, and Professional <br> Communication |
| COMM 2350 | Producing for the Entertainment <br> Industry |
| COMM 2501 | Communication Law |
| COMM 2450 | Sound Production for Digital Media |
| COMM 2451 | Sports Broadcasting |
| COMM 2454 | Broadcast Management and |

COMM 2531 to COMM 4799
COMM 4910 to COMM 4914
The following courses may not be used to satisfy this requirement:

| COMM 1511 | Communication and Storytelling |
| :--- | :--- |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3550 | Television Field Production |
| COMM 3650 | Television Studio Production |
| COMM 4650 | Digital Editing for TV |
| COMM 4750 | Advanced Digital Editing for TV and |
|  | Film |

## GPA Requirement

2.000 GPA required in the minor

## Media Production, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Restricted to communication studies majors. An overall 3.000 GPA is required for the minor. Only three courses from this minor also count toward communication studies major electives; additional courses taken for this minor do not count toward communication studies major requirements.

## Required Courses

| COMM 2350 | Producing for the Entertainment <br> Industry | 4 |
| :--- | :--- | :---: |
| COMM 2450 | Sound Production for Digital Media | 4 |
| COMM 3550 | Television Field Production | 4 |
| COMM 3650 | Television Studio Production | 4 |

## Elective Courses

Complete two of the following: 8

| COMM 2451 | Sports Broadcasting |
| :--- | :--- |
| COMM 2454 | Broadcast Management and <br> Programming |
| COMM 2650 | The Business of Entertainment |
| COMM 3450 | Voice-Over Artist |
| COMM 3750 | Special Effects and Postproduction for <br> Television |
| COMM 4650 | Digital Editing for TV |
| COMM 4750 | Advanced Digital Editing for TV and <br> Film |
| COMM 4940 | Special Topics in Media Production |

## GPA Requirement

3.000 GPA required in the minor

## Oratory and Public Speaking, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: For communications studies students, only two courses from this minor may also count toward communication studies major requirements. Additional courses taken for this minor do not count toward communication studies major requirements.

## Public Speaking

| COMM $1112 \quad$ Public Speaking | 4 |
| :--- | :---: |
| Elective Courses |  |
| Complete four of the following: | 16 |


| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |
| :--- | :--- |
| COMM 1511 | Communication and Storytelling |
| COMM 2312 | Voice and Articulation |
| COMM 2402 | Presentation, Style, and Professional <br>  <br> Communication |

COMM 4603 Advocacy Workshop

## GPA Requirement

2.000 GPA required in the minor

## Political Communication, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Only one course from your major may be applied to this minor.

## Introductory Courses

Complete two of the following:

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |
| COMM 1412 | Social Movement Communication |
| JRNL 1150 | Interpreting the Day's News |
| POLS 1150 | American Government |

## Intermediate/Advanced Courses

Complete four courses from the following lists. At least one
course must be taken from each department:

| Communication Studies |  |
| :---: | :--- |
| COMM 3320 | Political Communication |
| COMM 3409 | Advocacy Writing |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| Journalism |  |
| JRNL 2350 | History of Journalism |
| JRNL 3550 | Law of the Press |
| Political Science |  |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3320 | Politics and Mass Media |

## GPA Requirement

2.000 GPA required in the minor

## Professional Presentation, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Presentation Requirement

| Complete 2 of the following courses: |  |
| :--- | :--- |
| COMM 1112 | Public Speaking |
| COMM 1113 | Business and Professional Speaking |
| COMM 1210 | Persuasion and Rhetoric |
| COMM 1511 | Communication and Storytelling |
| COMM 2402 | Presentation, Style, and Professional <br> Communication |

## Performance Requirement

Complete 2 of the following courses:

| THTR 1125 | Improvisation for Entrepreneurs |
| :--- | :--- |
| THTR 1127 | Improvisation for Entrepreneurs- |
| Abroad |  |
| THTR 1130 | Introduction to Acting |
| THTR 1135 | Introduction to Acting Abroad |
| THTR 1160 | The Professional Voice |
| THTR 1165 | The Professional Voice Abroad |
| THTR 2345 | Acting for Cameras |

## GPA Requirement

2.000 GPA required in minor

## Rhetoric, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: For communication studies students, only two courses from this minor also count toward communication studies major requirements. Additional courses taken for this minor do not count toward communication studies major requirements.

## Required Elective

ENGL 1160 Introduction to Rhetoric
or COMM 1210 Persuasion and Rhetoric

## Electives

Note: For English majors, only one course from the major may also count toward this elective section of the minor.
Complete four of the following: 16

| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |
| :--- | :--- |
| COMM 1414 | Great Speakers and Speeches 1, 1630- <br> 1930 |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 4602 | Contemporary Rhetorical Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |

## GPA Requirement

2.000 GPA required in the minor

## Social Activism, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Only one course from your major may be applied to this minor.

## Introductory Courses

Only one course may be taken from each department/ program.
Complete two of the following:
Communication Studies
COMM 1412 Social Movement Communication

## Intermediate/Advanced Courses

Only one course may be taken from each department/ program.
Complete three of the following:

| Law and Public Policy |  |
| :---: | :--- |
| LPSC 2301 | Introduction to Law, Policy, and Society |
| LPSC 2302 | Global Human Rights: A Social and <br> Economic Perspective |
| Political Science |  |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| Sociology |  |
| SOCL 2268 | Social Movements |
| SOCL 2450 | Class, Power, and Social Change |
| SOCL 3401 | Social Policy and Intervention |

Service-Learning
Complete one of the following:

| COMM 4534 | Organizational Communication Training <br> and Development |
| :--- | :--- |
| COMM 4603 | Advocacy Workshop |
| HUSV 3550 | Social Policy, Advocacy, and Activism |
| POLS 2360 | Politics of Poverty |
| SOCL 3470 | Social Conflict and Community Service |

## GPA Requirement

2.000 GPA required in the minor

Game Design<br>Website (http://www.northeastern.edu/camd/gamedesign)<br>Andrea Raynor, MFA<br>Interim Chair<br>Celia Pearce<br>Associate Professor and Faculty Mentor<br>136 Meserve Hall<br>617.373.3928<br>617.373 .4107 (fax)

Dara-Lynn Pelechatz, Administrative Officer, d.pelechatz@northeastern.edu

Games are an important part of popular culture that now have grown into the largest segment of the global entertainment industry. No longer constrained to computers and consoles, games have become ubiquitous across every facet of the media landscape. The industry has evolved from being dominated by large commercial studios, to a wider variety of scales and styles of game maker, and has expanded beyond entertainment to all areas of society from fine arts, to education, to government, to health, to science. The growth of digital games has generated renewed interest in physical and board games, as well as hybrid "transmedia" games that integrate a variety of different media platforms. The ability to think literally "outside the box" of conventional game platforms has become essential to surviving in this new games ecosystem. Games at Northeastern, a multidisciplinary program between the College of Arts, Media and Design and the College of Computer and Information Science, is pushing the boundaries of innovation in games through multidisciplinary collaborations bridging design and research engaging a broad array of fields including psychology, computing, anthropology, humanities, social science, engineering, and emerging disciplines such as health informatics, network science, and digital humanities.

The multidisciplinary nature of games both attracts and produces students with varied interests in arts, expression, and the science of games to collaboratively explore the potential of games across media through critical making and research. Through shared and disciplinespecific courses, undergraduates enroll in the BFA-which emphasizes creativity, design, and expression in games, or the BS-which focuses on realizing vision and innovation through technical implementation. The program also introduces students to the wide array of game genres and applications, from independent and art games, to serious documentary and activist games, to games for health, as well as research disciplines such as analytics and ethnography, human-computer interaction, and user testing. Students will push the boundaries of games, creating alternative gameplay, exploring new experiential and visual aesthetics, examining how people play and interact with games, or building the technological underpinnings to make it all work.

Each of the game degrees foster experiential learning opportunities utilizing diverse intersections of skills that merge theory and practice, art, and expression blended with technology. Focus is on establishing core skills that engage critical thinking as excellent preparation for professional practice in game creation and research or moving on to advanced study. Students will have an opportunity to develop tools to succeed, eagerness to innovate, and skills to become next-generation entrepreneurs in an ever-changing games landscape. Practical and technical experiential training will be offered via Northeastern's worldrenowned co-op program.

Games at Northeastern currently offers three undergraduate degree programs:

- BFA in Digital Art and Game Design (p. 111)
- BFA in Games (p. 110)
- BS in Computer Science and Game Development (p. 113)

MS in game science and design as well as a certificate program in game analytics are offered.

## Entering the Major or Combined Majors

Students interested in games are encouraged to inquire and apply. Incoming freshmen may select any of our degree offerings directly upon application.

The curriculum shares a set of foundational courses, and each degree also has its own discipline-specific courses targeted to its own set of subdisciplines. Students interested in game design, specifically the creation of game mechanics and gameplay, as well as integration of game elements, would choose the BFA in games; those interested in visual arts as applied to games would take the BFA in digital art and game design; and those interested in computing and game development, implementing games through coding, and building underlying technologies such as game engines, would take the BS in computer science and game development.

The BFA in digital art and game design combined major offers students an opportunity to develop skills in the visual arts within games, while focusing on the depth of knowledge required to be successful in a highly competitive industry. The continuing revolution in digital computing and animation has produced a rapidly evolving field for artists who create aesthetics, characters, and environments for games. The combined majors encourage students to think and work collaboratively in multidisciplinary teams. The collaborative approach helps all team members to understand the context in which their asset contributions are used and to develop visual design skills in the service of larger experiential goals. Students have many opportunities to collaborate with their peers and work with students in all game design combined majors, culminating in a two-semester senior capstone. Students will have a home college in the College of Arts, Media and Design but will have a minimum of four interdisciplinary courses where students interact and work together with students in the BS in computer science degree.

The BFA in games seeks to give students the skills to communicate ideas and emotions through interactive media. The focus of the BFA degree is to explore games as an aesthetic and expressive form through critical analysis and creative, reflective practice. To reflect emerging trends in the video game industry, including broader platforms and audiences and more distribution channels, students will be oriented toward developing games and playful media in an independent creative context, preparing graduates to become leaders within a growing segment of the game industry. Curriculum is geared to cultivating the students' own unique creative voice through courses that apply theory analysis to gamemaking practice across a wide range of media. Students are exposed to a wide variety of genres and contexts, as well as different ways of thinking about games content, platforms, and production. Students will have a home college in the College of Arts, Media and Design but will have a minimum of four interdisciplinary courses where students interact and work together with students in the BS in computer science degree.

The BS in computer science and game development is inherently interdisciplinary and exposes students to both faculty and students from both the College of Computer and Information Science and the College of Arts, Media and Design. The focus of the BS degree is to learn the software development side of game implementation. Students have an opportunity to learn how to build high-quality software and games. Students interact and collaborate with students in other game degrees through project-oriented courses that are geared toward developing games for students' portfolios and resumés. Students will have a home college in the College of Computer and Information Science but will have a minimum of four interdisciplinary courses where students interact and work together with BFA students in the College of Arts, Media and Design.

All degree offerings come together in several courses, including the following:

| GAME 1110 | Games and Society | 4 |
| :--- | :--- | :--- |
| GAME 3700 | Rapid Idea Prototyping for Games | 4 |


| GAME 3800 | Game Concept Development and | 4 |
| :--- | :--- | :--- |
| GAME 4700 | Game Design Capstone 1 | 4 |
| GAME 4701 | Game Design Capstone 2 | 4 |

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

Same as college standards.

## Programs

## Bachelor of Fine Arts (BFA)

- Games (p. 110)
- Digital Art and Game Design (p. 111)


## Bachelor of Science (BS)

- Computer Science and Game Development (p. 113)


## Minors

- Game Design (p. 115)
- Game Art (p. 115)


## Games, BFA

The BFA in games seeks to give students the skills to communicate ideas and emotions through interactive media. The focus of the BFA degree is to explore games as an aesthetic and expressive form through critical analysis and creative, reflective practice. To reflect emerging trends in the video game industry, including broader platforms and audiences and more distribution channels, students will be oriented toward developing games and playful media in an independent creative context, preparing graduates to become leaders within a growing segment of the game industry. Curriculum is geared to cultivating the students' own unique creative voice through courses that apply theory analysis to gamemaking practice across a wide range of media. Students are exposed to a wide variety of genres and contexts, as well as different ways of thinking about games content, platforms, and production. BFA in games majors will be based in the College of Arts, Media and Design but will have a minimum of four games courses in which they interact with and collaborate with students in the BS in computer science and game development major.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
through the major course requirements. All other NUpath requirements must be met through electives.

## Games Major Requirements

## Art and Design at Northeastern

| ARTF 1000 | Art and Design at Northeastern | 1 |
| :--- | :--- | :--- |
| Foundation |  | 4 |
| GAME 1110 | Games and Society | 4 |
| GAME 2500 | Foundations of Game Design |  |
| ARTF 1122 | 2D Fundamentals: Surface and Drawing |  |
| and ARTF 1123 | and 2D Tools | 5 |
| ARTF 2223 | 5D Fundamentals: Experience and <br> and ARTF 2224 | Drawing <br> and 5D Tools |
| MATH 1260 | Math Fundamentals for Games | 5 |
| ARTG 2260 | Programming Basics | 4 |
| Art |  |  |

Art History Foundation
Complete one art history course within the ARTH subject 4 code.

| Game |  | 4 |
| :--- | :--- | :--- |
| GAME 1850 | Experimental Game Design | 4 |
| GAME 2350 | (Games as Theatre pending approval) | 4 |
| GAME 2650 | Introduction to Game Research | 4 |
| GAME 2750 | Methods | 4 |
| GAME 2950 | Games Criticism and Theory | 4 |
| GAME 3700 | Game Studio | 4 |

Entrepreneurship

| ENTR 2301 | Innovation! | 4 |
| :--- | :--- | :---: |
| GAME 2010 | The Business of Games | 4 |
| GAME 3800 | Game Concept Development and | 4 |
| ENTR 3305 | Production | 4 |

Capstone
A grade of $C$ or higher is required:

| GAME 4700 | Game Design Capstone 1 | 4 |
| :--- | :--- | :--- |
| GAME 4701 | Game Design Capstone 2 | 4 |
| Critical Making |  | 4 |
| Complete one of the following: |  |  |


| GAME 2755 | Games and Social Justice |
| :--- | :--- |
| GAME 2355 | Narrative for Games |
| GAME 3055 | Playful Design |
| Creative Making |  |
| Complete one of the following: |  |


| ARTG 3250 | Physical Computing |
| :--- | :--- |
| GAME 4155 | Designing Imaginary Worlds |
| GAME 4255 | (Generative Game Designs pending <br> approval) |

## Game Electives

Complete three GAME courses.

## Games Major Credit/GPA Requirement

Complete 98 semester hours for the major with a 2.000 GPA.

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ARTF 1000 | 1 ARTF 2223 <br> and <br> ARTF 2224 | 5 Vacation | 0 Vacation | 0 |
| ARTF 1122 and ARTF 1123 | 5 GAME 1110 | 4 |  |  |
| GAME 2500 | 4 MATH 1260 | 4 |  |  |
| Art history elective | 4 Elective | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ARTG 2260 | 4 GAME 2350 |  |  |  |
|  | (Pending <br> Approval) | 4 Vacation | Vacation |  |
| GAME 1850 | 4 GAME 2650 | 4 |  |  |
| GAME 2010 | 4 GAME 2750 | 4 |  |  |
| GAME 3700 | 4 GAME 2950 | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| GAME 3800 | 4 Creative <br> making <br> elective | 4 Vacation | Vacation |  |
| Critical <br> making <br> elective | 4 GAME <br> elective | 4 |  |  |
| GAME <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| GAME 4700 | 4 GAME 4701 | 4 |
| ENTR 2301 | 4 ENTR 3305 | 4 |
| GAME | 4 Elective | 4 |
| elective |  |  |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131

## Digital Art and Game Design, BFA

The BFA in digital art and game design combined major offers students an opportunity to develop skills in the visual arts within games, while focusing on the depth of knowledge required to be successful in a highly competitive industry. The continuing revolution in digital computing and animation has produced a rapidly evolving field for artists who
create aesthetics, characters, and environments for games. The combined majors encourage students to think and work collaboratively in multidisciplinary teams. The collaborative approach helps all team members to understand the context in which their asset contributions are used and to develop visual design skills in the service of larger experiential goals. Students have many opportunities to collaborate with their peers and work with students in all game design combined majors, culminating in a two-semester senior capstone. Students will have a home college in the College of Arts, Media and Design but will have a minimum of four interdisciplinary courses where students interact and work together with students in the BS in computer science degree.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression (EI) and Analyzing/Using Data (AD) are met through the major course requirements. All other NUpath requirements must be met through electives.

## Digital Art Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Art and Design Learning Community |  |  |
| ARTF 1000 | Art and Design at Northeastern | 1 |
| Art and Design Foundation |  |  |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern | 4 |
| ARTF 1120 | Observational Drawing | 4 |
| ARTF 1121 | Conceptual Drawing | 4 |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| ARTH 2212 | Survey of the Still and Moving Image | 4 |
| Digital Art Requirements |  |  |
| Complete two of the | following: | 10 |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |

## Digital Art Electives

Complete two of the following: 8

| ARTD 3460 | Photography 1 |
| :--- | :--- |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3473 | Animation for Games |
| ARTD 3480 | Video: Sound and Image |
| ARTD 4565 | Photography 2 |
| ARTD 4570 | Animation 2 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTD 5582 | Collaborative Video and Community <br> Engagement |

## General Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 1260 | Math Fundamentals for Games | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| Computing and Social Issues |  |  |
| This course should be taken only after the student has completed 56 semester hours. |  |  |
| Complete one of the following: |  | 4 |
| SOCL 4528 | Computers and Society |  |
| PHIL 1145 | Technology and Human Values |  |
| MSCR 1220 | Media, Culture, and Society |  |

Game Design Courses
Code Title ..... Hours
Game Design
GAME $1110 \quad$ Games and Society
GAME 3300 Game Interface Design 4
GAME $3700 \quad$ Rapid Idea Prototyping for Games 4
GAME $3800 \quad$ Game Concept Development and 4
GAME $4700 \quad$ Game Design Capstone $1 \quad 4$
GAME 4701 Game Design Capstone 24

| Interactive Media |  | 4 |
| :--- | :--- | :--- |
| ARTD 2100 | Narrative Basics | 4 |
| ARTG 2260 | Programming Basics | 4 |

## Game Design Electives

Code Title Hours

Complete three courses from the following lists. If the course 12-15 has prerequisites, the student must complete those first unless permission is obtained in advance from the faculty.
Game Design
GAME 3150 Game Design Algorithms

GAME 3400 Level Design and Game Architecture
GAME 3250 Artificial Intelligence for Games
Art and Design
ARTH 2210 Modern Art and Design History
Graphic Design
ARTG 2252 Graphic Design 1

| ARTG 2250 <br> and ARTG 2251 | Typography 1 <br> and Type Tools |
| :--- | :--- |
| ARTG 3350 | Typography 2 |
| Interactive Media |  |
| ARTH 1100 | Interactive Media and Society |
| ARTD 2200 | Interactive Narrative |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTG 2400 | Interaction Design 1: Responsive |
| and ARTG 2401 | and Interaction Design Tools |
| ARTE 4901 | Special Topics in Art and Design Studio |
| Computer Science |  |
| CS 2510 | Fundamentals of Computer Science 2 |
| and CS 2511 | and Lab for CS 2510 |
| CS 2800 | Logic and Computation |
| and CS 2801 | and Lab for CS 2800 |
| CS 3200 | Database Design |
| CS 3500 | Object-Oriented Design |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4300 | Computer Graphics |
| IS 4300 | Human Computer Interaction |
| CS 4400 | Programming Languages |
| CS 4550 | Web Development |
| CS 4800 | Algorithms and Data |
| Psychology |  |
| PSYC 3452 | Sensation and Perception |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

## Required General Electives

Code Title Hours

Complete three general electives.

## Program Requirement

138 total semester hours required

## Plan of Study

## Sample Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ARTF 1000 | 1 ARTF 1124 | 4 Vacation | 0 Vacation | 0 |
| ARTF 1120 | 4 ARTF 1121 <br> and <br> ARTF 1125 | 5 |  |  |
|  | 5 ARTH 2212 | 4 |  |  |
| ARTF 1122 <br> and <br> ARTF 1123 | 4 GAME 1110 | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| ARTF 2220 | 5 ARTD 2100 | 4 Vacation | Vacation |  |
| and |  |  |  |  |
| ARTF 2221 |  |  |  |  |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| GAME 3300 | 4 Co-op | Co-op | Vacation |  |
| GAME 3700 | 4 |  |  |  |
| Game design <br> elective | 4 |  |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| GAME 3800 | 4 Co-op | Co-op | Vacation |  |
| Game design <br> elective | 4 |  |  |  |
| Digital art <br> elective | 4 |  |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| GAME 4700 | 4 GAME 4701 | 4 |
| Game design <br> elective | 4 Elective | 4 |
| Digital art <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |

Total Hours: 135

## Computer Science and Game Development, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Computer Science Courses

Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

| A grade of C-or higher is required in each course: |  |  |
| :--- | :--- | ---: |
| CS 1800 | Discrete Structures |  |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |
| and CS 2501 | and Lab for CS 2500 |  |
| CS 2510 Fundamentals of Computer Science 2 <br> and CS 2511 and Lab for CS 2510 | 5 |  |
| CS 2800 | Logic and Computation <br> and CS 2801 | and Lab for CS 2800 |

Upper-Level Computer Science Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :---: |
| CS 3520 | Programming in C++ (Integrative <br> course) | 4 |
| CS 3540 | Game Programming (Integrative <br> course) | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4300 | Computer Graphics (Integrative course) | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| CS 4850 | Building Game Engines (Integrative <br> course) | 4 |

## Computer Science Elective Course

| CS 4150 | Game Artificial Intelligence (Integrative <br> course) |
| :---: | :--- |
| or IS 4300 | Human Computer Interaction |
| Computer Science Senior Seminar |  |

CS $4000 \quad$ Senior Seminar 1

## Game Design Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Game Design |  |  |
| GAME 1110 | Games and Society | 4 |
| GAME 2010 | The Business of Games | 4 |
| GAME 2500 | Foundations of Game Design | 4 |
| GAME 3700 | Rapid Idea Prototyping for Games | 4 |
| GAME 3800 | Game Concept Development and | 4 |
| GAME 4700 | Production | 4 |
| GAME 4701 | Game Design Capstone 1 | 4 |

## Game Design Elective

Complete one GAME course other than GAME 2150, 4

## GAME 3150, or GAME 3250.

## Computer Science/Game-Related Electives

Complete two courses from the following:
Any course in GAME subject area other than GAME 2150,
GAME 3150, or GAME 3250
Any course in the ARTD, ARTE, ARTF, ARTG, ARTH, and
ARTS subject areas
CS 2600 to CS 5999 but not CS 5010

| IS 2000 to IS 5999 but not IS 4900 |  |
| :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering |
| ECON 2350 | Statistics |
| or PSYC 2320 | Statistics in Psychological Research |

## General Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Psychology |  | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Mathematics |  | 4 |
| A grade of C- or higher is required: |  |  |
| MATH 1260 | Math Fundamentals for Games <br> (Integrative course) | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

## Computer Science English Requirement

Code Title Hours
College Writing
ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines
Students are strongly encouraged to take Advanced Writing in the Technical Professions (ENGW 3302) but may substitute Interdisciplinary Advanced Writing in the Disciplines
(ENGW 3315).
ENGW 3302 Advanced Writing in the Technical 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

| Code | Title |
| :--- | ---: | Hours

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Exploring Creative Expression and Innovation
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills through Experience is satisfied through coop.

## Program Requirement

133 total semester hours required

## Plan of Study

## Sample Four Years, Two Co-ops in Fall and Summer

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1200 | $\begin{aligned} & 1 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3500 | 4 Vacation | 0 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 PSYC 1101 | 4 |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 GAME 1110 <br> and <br> GAME 1111 | 4 |  |  |
| GAME 2500 | 4 MATH 1260 | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |
|  | 18 | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3520 | 4 CS 1210 | 1 Elective | 4 Co-op | 0 |
| CS 4800 | 4 CS 3540 | 4 Elective | 4 |  |
| GAME 2010 | 4 CS 4300 | 4 |  |  |
| GAME 3700 | 4 MATH 1341 | 4 |  |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CS 3650 | 4 Co-op | 0 Co-op | 0 |
|  | CS 4850 | 4 |  |  |
|  | GAME 3800 | 4 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| GAME 4700 | 4 GAME 4701 | 4 |
| CS 3700 | 4 CS/game <br> elective | 4 |
| CS 4500 | 4 CS 4000 | 1 |
| ENGW 3302 | 4 Computer <br> science <br> elective <br> Elective | 4 |
| 16 | 4 |  |

Total Hours: 134

## Game Design, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Foundations of Game Design

GAME 2500
Foundations of Game Design

## Electives

## Any GAME courses

| ARTD 2100 | Narrative Basics |
| :--- | :--- |
| ARTD 2200 | Interactive Narrative |
| ARTG 3250 | Physical Computing |
| IS 4300 | Human Computer Interaction |
| IE 4522 | Human Machine Systems |
| and IE 4523 | and Lab for IE 4522 |

## GPA Requirement

2.000 GPA required in the minor

## Game Art, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Students who wish to register for 2000 level courses and above need to plan ahead in order to complete pre-requisite course(s) ahead of time.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Requirements for Non-Art and Design Majors

An overall GPA of 2.500 is required for the minor.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools | 5 |
| ARTF 1120 | Observational Drawing | 4 |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| Elective Course |  |  |
| Complete one of | ollowing: | 4 |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 3473 | Animation for Games |  |

## Requirements for Art and Design Majors

An overall GPA of 2.500 is required for the minor. Note: This minor is not available to students in the BFA in Media Arts program.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |$\quad$| ARTD 2370 | Animation Basics |
| :--- | ---: |
| and ARTD 2371 | and Animation Tools |
| ARTF 1120 | Observational Drawing |
| Additional Courses | 4 |
| Complete two of the following: | 8 |

Elective Course
Complete one of the following: 4

| ARTD 2100 | Narrative Basics |
| :--- | :--- |
| ARTD 3470 | Animation 1 |
| ARTD 4577 | Digital Sculpture and Model Making |
| ARTE 3901 | Art and Design Special Topics |
| ARTE 4901 | Special Topics in Art and Design Studio |
| GAME 2500 | Foundations of Game Design |

## GPA Requirement

2.500 GPA required in the minor

## School of Journalism

Website (http://www.northeastern.edu/camd/journalism)
Jonathan Kaufman, MA
Professor and Director
102 Lake Hall
617.373 .3236
617.373 .8773 (fax)

Susan Conover, Academic Coordinator, s.conover@northeastern.edu
The School of Journalism seeks to prepare students for careers in news and related communication fields. The program prepares future journalists and professional communicators in writing, editing, digital and social media, photography, video and audio production, design, and public relations. These skills have broad applications. Graduates of the program also go on to work in government, business, law, and teaching.

Students may enroll in a four- or five-year cooperative education program or a four-year program without co-op. The school strongly advises students to obtain cooperative education experience. The program offers some of the best co-ops and internships anywhere.

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.

## Academic Progression Standards

Journalism majors and minors must be in good standing in accordance with university-wide requirements to remain in the major or minor.

## Preapproved Template Program in Journalism

The School of Journalism offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/ registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

Bachelor of Arts (BA)

- Journalism (p. 116)
- Media and Screen Studies and Journalism (p. 120)


## Bachelor of Science (BS)

- Computer Science and Journalism (p. 118)
- Information Science and Journalism (p. 121)


## Minor

- Journalism (p. 123)


## Journalism, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI), Difference and Diversity (DD), Ethical Reasoning (ER) are met through the major course requirements. All other NUpath requirements must be met through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Journalism Major Requirements

Students transferring from outside institutions must complete a minimum of five 4-credit journalism courses at Northeastern, and these must include:

| JRNL 2201 | Journalism 2: Intermediate Reporting |
| :--- | :--- |
| JRNL 2301 | Visual Storytelling in Journalism |
| JRNL 4650 | Journalism Ethics and Issues |

## Introduction to College

| JRNL 1000 | Journalism at Northeastern | 1 |
| :--- | :--- | ---: |
| Journalism Courses |  | 4 |
| A grade of C or higher is required: |  |  |
| JRNL 1101 | Journalism 1: Fundamentals of <br>  <br>  <br>  <br> Reporting | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting | 4 |
| JRNL 2301 | Visual Storytelling in Journalism | 4 |
| JRNL 3610 | Digital Storytelling and Social Media | 4 |
| Required Journalism |  | 4 |
| JRNL 1150 | Interpreting the Day's News | 4 |
| JRNL 2350 | History of Journalism | 4 |
| JRNL 3550 | Law of the Press | 4 |
| JRNL 4650 | Journalism Ethics and Issues |  |
| Journalism Electives |  | 12 |
| Complete three journalism electives. |  |  |
| Journalism-Related |  |  |

HIST 1130
Introduction to the History of the United States

## Journalism Major Credit Requirement

Complete 48 semester hours in the major.

## Upper-Division Electives

Complete three general electives numbered 3000 or above that do not double-count with the major or NUpath.

## Program Requirement

128 total semester hours required
Plan of Study
Sample Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| JRNL 1000 | 1 | JRNL 1101 | 4 Vacation | 0 Vacation | 0 |
| JRNL 1150 |  | Foreign language core course | 4 |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |
| HIST 1130 | 4 | Elective | 4 |  |  |
| Elective | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| JRNL 2201 | 4 JRNL 2301 | 4 Vacation | 0 Co-op | 0 |
| Foreign <br> language <br> core course | 4 JRNL 2350 | 4 |  |  |
| Elective | 4 Foreign <br> language <br> core course | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | EEAM 2000 | 1 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 JRNL 3550 | 4 Elective | 4 Co-op | 0 |
|  | JRNL 3610 | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |
|  | 0 | 16 | 8 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 JRNL undergraduate elective | 4 Upperdivision elective | 4 Co-op | 0 |
|  | JRNL undergraduat elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Upperdivision elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 JRNL 4650 | 4 |
|  | JRNL <br> undergraduatı <br> elective | 4 |
| Upper- <br> division <br> elective | 4 |  |
|  | 4 |  |
|  | Elective | 16 |

Total Hours: 130

## Sample Five Years, Three Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | JRNL 1000 | JRNL 1101 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| JRNL 2201 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign <br> language <br> core course | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EEAM 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| JRNL 2301 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| JRNL 2350 | 4 |  | Elective | 4 |
| Foreign <br> language <br> core course | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| JRNL 3550 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| JRNL 3610 | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 16 | 0 | 0 | 0 |

## Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| JRNL undergraduate elective | 4 | JRNL 4650 | 4 |
| JRNL undergraduat elective |  | JRNL undergraduat elective | 4 |
| Elective |  | Upperdivision elective | 4 |
| Upperdivision elective | 4 | Elective | 4 |
| 16 |  |  | 16 |

Total Hours: 130

## Computer Science and Journalism, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | :---: |
| Computer Science Overview | Computer Science/Information Science | 1 |
| CS 1200 | Overview 1 |  |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |

A grade of C - or higher is required:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Senior Seminar
CS 4000 Senior Seminar 1

## or THTR 1170 The Eloquent Presenter

Computer Science Elective Courses
Complete three courses from the following ranges: 12
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900
At least one of these three courses must be from the following list:

| IS 4200 | Information Retrieval |
| :--- | :--- |
| IS 4300 | Human Computer Interaction |
| IS 4700 | Social Information Systems |

## Journalism Major Requirements

Students transferring from outside institutions must complete a minimum of five 4-credit journalism courses at Northeastern, and these must include:


| Required Journalism |  | 4 |
| :--- | :--- | ---: |
| JRNL 1150 | Interpreting the Day's News | 4 |
| JRNL 2350 | History of Journalism | 4 |
| JRNL 3550 | Law of the Press | 4 |
| JRNL 4650 | Journalism Ethics and Issues |  |
| Journalism Electives | 8 |  |
| Complete two JRNL courses. |  |  |
| Journalism-Related Requirement | Introduction to the History of the United |  |
| HIST 1130 | States | 4 |

## Mathematics Requirement

Code Title Hours
MATH 1341 Calculus 1 for Science and Engineering 4

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |

## Writing Requirement

Code Title
Hours
College Writing
ENGW 1111 First-Year Writing 4

## Advanced Writing in the Disciplines

JRNL 2301
Visual Storytelling in Journalism
4

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Code Title

Complete seven general electives.
Hours

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and JRNL courses

## Program Requirement

133 total semester hours required

## Plan of Study

Sample Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 <br> CS 2510 <br> and CS 2511 | 5 Vacation | 0 Vacation | 0 |
| CS 1800 <br> and CS 1801 | 4 CS 2800 <br> and CS 2801 | 5 |  |  |
| CS 2500 <br> and CS 2501 | 5 JRNL 1101 | 4 |  |  |
| JRNL 1150 | 4 HIST 1130 | 4 |  | 0 |
| ENGW 1111 | 4 | 18 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 CS 3200 | 4 Vacation | 0 Co-op | 0 |
| JRNL 2201 | 4 CS 4800 | 4 |  |  |
| MATH 1341 | 4 JRNL 2301 | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | CS 1210 | 1 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 JRNL 2350 | 4 Elective | 4 Co-op | 0 |
|  | CS | 4 Elective | 4 |  |
|  | undergraduatı <br> elective |  |  |  |



Total Hours: 134

## Sample Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 <br> and CS 2511 | 5 Vacation | 0 Vacation | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| JRNL 2201 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| CS 1210 | 1 | 0 | 0 |  |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3200 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| JRNL 2301 | 4 |  |  |  |


| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| JRNL 2350 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS | 4 |  | Elective | 4 |
| undergraduat <br> elective |  |  |  |  |
| JRNL 3610 | 4 |  |  | 8 |
| Elective | 4 | 0 | 0 | 8 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| JRNL 3550 | 4 CS 4000 | 1 |
| CS |  |  |
| undergraduatı <br> elective | 4 CS 4500 | 4 |
| CS <br> undergraduate <br> elective | 4 JRNL 4650 | 4 |
| JRNL <br> undergraduatı <br> elective | 4 JRNL <br> undergraduatı <br> elective | SOCL 4528 |

Total Hours: 134

## Media and Screen Studies and Journalism, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introduction to College |  |  |$\quad$| Media and Screen Studies at |
| :--- |

## Advanced Theory

MSCR 4623 Theories of Media and Culture 4

Media and Screen Electives
Complete five of the following: 20

| CINE 2350 | History of Film |
| :---: | :---: |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3446 | Topics in Documentary Production |
| CINE 3900 | Film and Psychoanalysis |
| CINE 3920 | Topics in Film Studies |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen Studies |
| MSCR 3300 | Media Activism |
| MSCR 3402 | Television and Society |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |


| Advanced Media and Screen Electives | 8 |
| :--- | :--- |
| Complete two of the following: |  |


| CINE 3500 | Film Theory |
| :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen |
| MSCR 4685 | Studies |
| MSCR 497eractive Documentary |  |
| MSCR 4971 | Junior/Senior Honors Project 1 |
| MSCR 4991 | Junior/Senior Honors Project 2 |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| ARTD 4582 |  |


| ARTD 4682 | Video in Context: Video and Social Change |  |
| :---: | :---: | :---: |
| Journalism Requirements |  |  |
| Code | Title | Hours |
| Journalism Foundations |  |  |
| JRNL 1101 | Journalism 1: Fundamentals of Reporting (A grade of $C$ or higher is required) | 4 |
| JRNL 1150 | Interpreting the Day's News | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting (A grade of C or higher is required) | 4 |
| Journalism and Advanced Writing |  |  |
| JRNL 2301 | Visual Storytelling in Journalism (A grade of C or higher is required) | 4 |
| Television News |  |  |
| JRNL 5307 | Video Newswriting | 4 |
| JRNL 5314 | Video News Production 1 | 4 |
| Documentary Production |  |  |
| JRNL 5309 | Documentary Production | 4 |
| Ethics and Issues |  |  |
| JRNL 4650 | Journalism Ethics and Issues | 4 |
| Journalism Elective |  |  |
| Complete one | in the following range: | 4 |
| JRNL 2000 to JRNL 5999 |  |  |
| Integrative Requirement |  |  |
| The following course also counts toward the media and screen studies requirements above: |  |  |
| Code | Title | Hours |
| Integrative Course |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Information Science and Journalism, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Information Science Courses
Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |

A grade of C - or higher is required:

| CS 1800 <br> and CS 1801 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | ---: |
| CS 2500 <br> and CS 2501 | Fundamentals of Computer Science 1 <br> and Lab for CS 2500 | 5 |
| CS 2510 CS 2511 Fundamentals of Computer Science 2 <br> CS 2800 and Lab for CS 2510 | 5 |  |
| and CS 2801 | Logic and Computation <br> and Lab for CS 2800 | 5 |


| Computer Science Required Courses |  |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |

Information Science Required Courses

| IS 2000 | Principles of Information Science | 4 |
| :---: | :---: | :---: |
| IS 3500 | Information System Design and Development | 4 |
| IS 4800 | Empirical Research Methods | 4 |
| IS 4900 | Information Science Senior Project | 5 |
| Information Science Elective (Integrative) |  |  |
| Complete one of the following: |  | 4 |
| IS 4200 | Information Retrieval |  |
| IS 4300 | Human Computer Interaction |  |
| IS 4700 | Social Information Systems |  |

## Journalism Major Requirements

Students transferring from outside institutions must complete a minimum of five 4-credit journalism courses at Northeastern, and these must include:

| Code | Title | Hours |
| :--- | :--- | ---: |
| JRNL 2201 | Journalism 2: Intermediate Reporting |  |
| JRNL 2301 | Visual Storytelling in Journalism |  |
| JRNL 4650 | Journalism Ethics and Issues |  |
| Code | Title | Hours |
| Journalism Courses |  | 4 |
| A grade of C or higher is required: |  |  |
| JRNL 1101 | Journalism 1: Fundamentals of <br> Reporting | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting | 4 |
| JRNL 2301 | Visual Storytelling in Journalism | 4 |
| JRNL 3610 | Digital Storytelling and Social Media | 4 |
| Required Journalism |  | 4 |
| JRNL 1150 | Interpreting the Day's News | 4 |


| JRNL 2350 | History of Journalism | 4 |
| :--- | :--- | ---: |
| JRNL 3550 | Law of the Press | 4 |
| JRNL 4650 | Journalism Ethics and Issues | 4 |
| Journalism Electives |  | 8 |
| Complete two JRNL courses. |  |  |
| Journalism-Related Requirement | 4 |  |
| HIST 1130 | Introduction to the History of the United |  |
|  | States | Hours |
| Major Requirements | 4 |  |
| Code | Title | 4 |
| ECON 2350 | Statistics | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | Foundations of Psychology |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

## Writing Requirement

| Code | Title | Hours |
| :--- | :---: | ---: |
| College Writing |  | 4 |
| ENGW 1111 | First-Year Writing |  |
| Advanced Writing in the Disciplines | 4 |  |
| JRNL 2301 | Visual Storytelling in Journalism | 4 |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience satisfied through co-op.

## Required General Electives

Code
Complete four general electives.

## Hours

16

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1200 | 1 <br> CS 2510 <br> and CS 2511 | 5 Vacation | 0 Vacation | 0 |
| CS 1800 <br> and CS 1801 | CS 2800 <br> and CS 2801 | 5 |  |  |
| CS 2500 <br> and CS 2501 | 5 JRNL 1101 | 4 |  |  |
| JRNL 1150 | 4 HIST 1130 | 4 |  |  |
| ENGW 1111 | 4 | 18 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 CS 3200 | 4 Vacation | 0 Co-op | 0 |
| IS 2000 | 4 IS 3500 | 4 |  |  |
| JRNL 2201 | 4 JRNL 2301 | 4 |  |  |
| PSYC 1101 | 4 CS 4800 | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| Co-op | 0 JRNL 3610 | 4 Elective | 4 Co-op | 0 |
|  | JRNL 2350 | 4 Elective | 4 |  |
| MATH 1341 | 4 |  |  |  |
|  | ECON 2350 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 JRNL 3550 | 4 Elective | 4 Co-op | 0 |
|  | IS 4800 | 4 Elective | 4 |  |
| JRNL <br> undergraduate <br> elective | 4 |  |  |  |
| IS elective <br> course | 4 |  | 0 |  |
| 0 | 16 | 8 |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 | 5 |
|  | JRNL 4650 | 4 |
|  | JRNL <br> undergraduate <br> elective | 4 |
|  | SOCL 4528 | 4 |
|  | 0 | 17 |
| Total Hours: 134 |  |  |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and JRNL courses

## Journalism, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| JRNL 1150 | Interpreting the Day's News | 4 |
| :--- | :--- | ---: |
| JRNL 1101 | Journalism 1: Fundamentals of <br> Reporting (A grade of C or higher is <br> required) | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting (A <br> grade of C or higher is required) | 4 |
| JRNL 2301 | Visual Storytelling in Journalism (A <br> grade of C or higher is required) | 4 |
| JRNL 3550 | Law of the Press |  |
| JRNL 4650 | Journalism Ethics and Issues | 4 |

## GPA Requirement

2.000 GPA required in the minor

## Media and Screen Studies

Website (http://www.northeastern.edu/mscr)
Dale A. Herbeck, PhD
Professor and Chair

## Nathan Blake, PhD

Associate Teaching Professor and Faculty Mentor
Media and Screen Studies Program
114 Holmes Hall
617.373.6599
n.blake@northeastern.edu

Media and screen studies (MSCR) educates students in the analysis and production of media. Taught from a liberal arts perspective, a media and screen studies degree seeks to give students the ability to think critically about the continually changing media industry and the complex world in which it exists and to apply that knowledge to media production. MSCR is a challenging degree that is not limited to what is traditionally offered at a film school or in a visual and performing arts degree. It gives students the tools to become engaged citizens equipped to meet the challenges of living in a global culture defined by technological and social change.

The BA in media and screen studies offers courses in analysis and practice. Required courses offer students an opportunity to obtain the critical thinking skills necessary to better understand media content, media technology, and media production. Students then decide how many production and analysis courses they want to take. Choosing from a broad range of electives, students can take more than half their major in media and film production courses, can take a majority of courses that critically examine media content and technology, or can combine courses in other ways.

Students may also enroll in one of the preexistent MSCR combined majors. Media and screen studies has combined majors with communication studies, English, journalism, political science, sociology, and theatre. Students may also petition for new combinations, making use of the half-major template in media and screen studies.

## Academic Progression Standards

For media and screen studies, majors must maintain at least a 2.500 grade-point average (GPA) in their overall program of studies and a minimum of 3.000 in the following two required courses:

| MSCR 1220 | Media, Culture, and Society | 4 |
| :--- | :--- | :--- |
| MSCR 2220 | Understanding Media and Film | 4 |

## Preapproved Template Program in Media and Screen Studies

Media and screen studies offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/ registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Arts (BA)

- Media and Screen Studies (p. 123)
- Communication Studies and Media and Screen Studies (p. 125)
- Media and Screen Studies and English (p. 128)
- Media and Screen Studies and Journalism (p. 130)
- Media and Screen Studies and Philosophy (p. 131)
- Media and Screen Studies and Political Science (p. 133)
- Media and Screen Studies and Sociology (p. 134)
- Media and Screen Studies and Theatre (p. 135)


## Bachelor of Science (BS)

- Media and Screen Studies and Theatre (p. 136)


## Minors

- Cinema Studies (p. 138)
- Film Production (p. 138)
- Media and Screen Studies (p. 138)


## Media and Screen Studies, BA

The BA in media and screen studies offers courses in analysis and practice. Required courses offer students an opportunity to obtain the critical-thinking skills necessary to better understand media content, media technology, and media production. Students then decide how many production and analysis courses they want to take. Choosing from a broad range of electives, students can take more than half their major in media and film production courses, can take a majority of courses that critically examine media content and technology, or can combine courses in other ways.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression (EI), Interpreting Culture (IC), Societies and Institutions (SI), and Difference and Diversity (DD) are met through the major course requirements. All other NUpath requirements must be met through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

## Introductory Courses

A minimum GPA of 2.750 is required:

| MSCR 1220 | Media, Culture, and Society | 4 |
| :--- | :--- | :--- |
| MSCR 1230 | Introduction to Film Production | 4 |
| MSCR 1310 | Introduction to Digital Media Culture | 4 |
| MSCR 2220 | Understanding Media and Film | 4 |

Media and Screen Studies Requirements

| MSCR 3435 | Media Industries | 4 |
| :---: | :--- | :--- |
| MSCR 3437 | Media and Identity | 4 |
| MSCR 4602 | Media and Democracy | 4 |
| or MSCR 3423 | Twentieth-Century Media |  |

Media and Screen Studies Theory Course
MSCR $4623 \quad$ Theories of Media and Culture
Media and Screen Studies Elective Requirement 1
Complete five of the following:

| MSCR 2302 | Advertising and Promotional Culture |
| :--- | :--- |
| MSCR 2305 | Digital Media Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2505 | Digital Feminisms |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen |
| Studies |  |
| MSCR 3300 | Media Activism |
| MSCR 3485 | Video: Story and Sequence |
| MSCR 3422 | Television and Society |
| MSCR 3423 | Media Audiences |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| CINE 2160 | Narrative Filmmaking |
| and CINE 2161 | and Video Software Tools |
| CINE 2336 | American Film and Culture |
| CINE 2350 | History of Film |


| CINE 2394 | Modern Film and Global Culture |
| :--- | :--- |
| CINE 3446 | Topics in Documentary Production |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |
| COMM 2450 | Sound Production for Digital Media |
| COMM 3550 | Television Field Production |
| COMM 3650 | Television Studio Production |
| Media and Screen Studies Elective Requirement 2 |  |
| Complete two of the following: |  |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br> MSCR 4685 |
| Studies |  |
| MSCR 497eractive Documentary |  |
| MSCR 4971 | Junior/Senior Honors Project 1 |
| MSCR 4991 | Junior/Senior Honors Project 2 |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4994 | Internship |
| MSCR 4996 | Experiential Education Directed Study |
| CINE 3500 | Film Theory |
| CINE 3920 | Topics in Film Studies |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4560 | Directing the Short Fiction Film |
| ARTD 4582 | Video in Context: Video and Social <br> ARTD 4682 |
| COMM 4650 | Digital Editing for TV |
| COMM 4750 | Advanced Digital Editing for TV and |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MSCR 1220 | 4 MSCR 2220 | 4 | Vacation | 0 Vacation |$\quad 0$


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Media and <br> screen <br> studies <br> elective | Media and <br> screen <br> studies <br> elective | 4 Vacation | 0 Co-op | 0 |
| MSCR 3435 | 4 MSCR 3437 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Media and screen studies elective | 4 Media and screen studies elective | 4 Co-op | 0 |
|  | Media and screen studies elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | Media and <br> screen <br> studies <br> elective | 4 Media and <br> screen <br> studies <br> elective | 4 Co-op | 0 |
| MSCR 4602 <br> or 3423 | 4 Elective | 4 |  |  |
| Elective | 4 |  | 0 |  |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 MSCR 4623 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 130

## Sample Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MSCR 1220 | 4 MSCR 2220 | 4 Vacation | 0 Vacation | 0 |
| MSCR 1230 | 4 MSCR 1310 | 4 |  |  |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| MSCR 1000 | 1 |  |  | 0 |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Media and <br> screen <br> studies <br> elective | 4 Co-op | 0 Co-op | 0 Media and <br> screen <br> studies <br> elective | 4 |
| MSCR 3435 | 4 | Elective | 4 |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EEAM 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Media and <br> screen <br> studies | 4 Co-op | 0 Co-op | 0 Media and <br> screen <br> elective |  |
| MSCR 3437 | 4 | elective |  |  |
| Elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Media and <br> screen <br> studies <br> elective | 4 Co-op | 0 Co-op | 0 Vacation |  |
| MSCR 4602 <br> or 3423 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 16 | 0 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Media and <br> screen | 4 MSCR 4623 | 4 |
| studies <br> elective | 4 Elective | 4 |
| Media and <br> screen <br> studies <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 16 | 16 |

Total Hours: 130

## Communication Studies and Media and Screen Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attributes $\mathrm{IC}, \mathrm{SI}$, and ER are met through the major course requirements. In order to graduate, the student must meet EI, ND, IC, FQ, and DD in their electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to Media Studies |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |
| Introduction to Screen Theory |  |  |
| MSCR 2220 | Understanding Media and Film | 4 |
| Advanced Theory |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Media and Screen Electives |  |  |
| Complete five o | following: | 20 |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2350 | History of Film |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3920 | Topics in Film Studies |  |
| CINE 3900 | Film and Psychoanalysis |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |

## Advanced Media and Screen Electives

| MSCR 4206 | Age, Media, and Representation |
| :---: | :---: |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| CINE 3389 | Screenwriting |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social Change |

## Communication Studies Requirements

## Code Title Hours

Introduction to College

| COMM 1000 | Communication Studies at <br> Northeastern | 1 |
| :--- | :--- | :--- |

Communication Studies Common Requirements
COMM 1101 Introduction to Communication Studies 4
COMM $1112 \quad$ Public Speaking 4
or COMM 2301 Communication Research Methods
Foundation Course
Complete one of the following: 4

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1231 | Principles of Organizational <br> Communication |
| COMM 1225 | Communication Theory |
| COMM 1255 | Communication in a Digital Age | | Classical Foundations of |
| :--- |
| Communication |

Cluster Course
Complete one of the following: 4

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| Writing-Intensive |  |
| Complete two of the following: |  |


| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |


| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| :--- | :--- |
| COMM 3415 | Communication Criticism |
| COMM 3500 | Environmental Issues, Communication, <br> and the Media |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3530 | Communication and Sexualities |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social |
| COMM 4131 | Sex and Interpersonal Communication |
| COMM 4533 | Conganizational Communication Training <br> and Development |
| COMM 4534 | Nonverbal Social Interaction <br> Contemporary Rhetorical Theory |
| COMM 4535 4602 | Youth and Communication Technology |
| COMM 4605 Crisis Communication and Image |  |
| COMM 4631 | Management |
| COMM 4901 | Speminar in Communications <br> Studies |
| COMM 4918 |  |


| Communication Electives |  |
| :--- | :--- |
| Complete three COMM courses. | 12 |

## Integrative Requirement <br> Code Title Hours

| Integrative Course |  | 4 |
| :---: | :--- | :--- |
| COMM 4602 | Contemporary Rhetorical Theory | 4 |
| or CINE 3500 | Film Theory |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| COMM 1000 | 1 | MSCR 2220 | 4 | Elective | 4 Vacation |  |
| MSCR 1220 |  | COMM 1112 <br> or 2301 | 4 | Elective | 4 |  |
| COMM 1101 | 4 | Elective | 4 |  |  |  |
| Elective | 4 | Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |  |  |
| $\qquad$ | 17 |  | 16 |  | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MSCR <br> elective | 4 Co-op | Co-op | Elective | 4 |
| MSCR <br> elective | 4 |  | Elective | 4 |
| COMM <br> foundation <br> course | 4 |  |  |  |
| COMM <br> cluster <br> course | 4 |  |  |  |
| EEAM 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 <br> Vacation | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MSCR <br> elective | 4 Co-op | Cop |  |  |
| COMM <br> elective | 4 |  |  |  |
| COMM <br> writing- <br> intensive | 4 |  |  |  |
| MSCR <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 <br> Co-op | Hours Summer 2 <br> Vacation | Hours |
| :--- | :---: | :---: | :---: | :---: |
| COMM <br> elective | 4 Co-op | 4 |  |  |
| COMM <br> writing- <br> intensive | 4 |  |  |  |
| MSCR <br> advanced <br> elective | 4 | 0 | 0 | 0 |
| MSCR <br> elective | 16 |  |  |  |
|  |  |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Integrative <br> course | 4 MSCR 4623 | 4 |
| COMM <br> elective | 4 Elective | 4 |
| MSCR <br> advanced <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 130

## Sample Four Years, No Co-ops

Year 1
Fall Hours Spring Hours
COMM 1000
1 MSCR 2220
$\left.\begin{array}{llc}\text { MSCR } 1220 & 4 \text { COMM 1112 or } & 2301\end{array}\right] 4$

| Year 2 | Hours Spring | Hours |
| :--- | :---: | ---: |
| Fall | 4 COMM cluster |  |
| MSCR elective | course | 4 |
| MSCR elective | 4 MSCR elective | 4 |
| COMM foundation <br> course | 4 MSCR elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

## Year 3

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| COMM elective | 4 COMM elective | 4 |
| COMM writing- | 4 COMM writing- |  |
| intensive | 4 MSCR advanced |  |
| MSCR elective | 4 Elective | 4 |
| Elective | 16 | 4 |
|  | 4 |  |


| Year 4 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| COMM elective | 4 MSCR 4623 | 4 |
| Integrative course | 4 Elective | 4 |
| MSCR advanced | 4 Elective | 4 |
| elective | 4 Elective | 4 |
| Elective | 16 | 16 |

Total Hours: 129

## Media and Screen Studies and English, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

Media and Screen Studies Requirements
Code $\quad$ Title Hours Introduction to College

| MSCR 1000 | Media and Screen Studies at | 1 |
| :--- | :--- | :--- |
|  | Northeastern |  |

Introduction to Media Studies
MSCR 1220 Media, Culture, and Society 4
Introduction to Screen Theory
MSCR $2220 \quad 4$
Media and Screen History
Complete one of the following: 4

| CINE 2350 | History of Film |
| :---: | :--- |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 4208 | TV History |
| Advanced Theory |  |
| MSCR 4623 | Theories of Media and Culture |


| Media and Screen Electives |
| :--- |
| Complete three of the following: |


| CINE 2350 | History of Film |
| :--- | :--- |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 3446 | Topics in Documentary Production |
| CINE 3900 | Film and Psychoanalysis |
| CINE 3920 | Topics in Film Studies |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen |
| MSCR 3300 | Studies |
| MSCR 3402 | Televia Activism |
| MSCR 3422 | Media Audiences Society |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |

Advanced Media and Screen Electives
Complete two of the following:

| CINE 3500 | Film Theory |
| :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |


| MSCR 4602 | Media and Democracy |
| :--- | :--- |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br> Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| MSCR 4685 | Interactive Documentary |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |

## English Requirements for Combined Majors

## Code Title <br> Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from the lists below must be numbered in the range ENGL 3000ENGL 4999.

Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :--- | :--- | :---: |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 | Introduction to Rhetoric | 4 |
| or ENGL 1410 | Introduction to Writing Studies |  |

## Diversity

This course may also be used to fulfill an additional English requirement below.
Complete one of the following:

| ENGL 2296 | Early African-American Literature |
| :--- | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |
| Pre-Nineteenth-Century Literature |  |
| Complete one of the following: |  |


| ENGL 1600 | Introduction to Shakespeare |
| :--- | :--- |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |

[^2]ENGL $3151 \quad$ Topics in Early Literatures Abroad
ENGL 3607 Chaucer
ENGL 3618 Milton
ENGL/JWSS 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity
ENGL $4020 \quad$ Topics in 17th- and 18th-Century Literatures

Nineteenth-Century Literature
Complete one of the following: 4
ENGL 2260 Romantic Poetry
ENGL 2270 Victorian Literature
ENGL 2280 Nineteenth-Century British Fiction
ENGL 2330 The American Renaissance
ENGL 2340 American Realism
ENGL 3619 Emerson and Thoreau
ENGL $3720 \quad$ Nineteenth-Century Major Figure
ENGL 4040 Topics in 19th-Century Literatures
Literature of the Twentieth and Twenty-First Centuries
Complete one of the following: 4

| ENGL 2290 | Twentieth-Century British Literature |
| :--- | :--- |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL/JWSS 2610 | Contemporary Israeli Literature and Art <br> Abroad |

ENGL/JWSS 3685 From Kafka to Kushner: Modern and Contemporary Jewish Literature
ENGL 3730 Twentieth- and Twenty-First-Century Major Figure
ENGL $4060 \quad$ Topics in 20th- and 21 st-Century Literatures
Theories and Methods
Complete one of the following: 4

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching <br>  <br> ENGL 4100 |
| ENGL 4110 | Topics in Literary Criticism |
| ENGL 4400 | Opening the Archive |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and <br>  <br> LING 2350istics |
| LING 3450 | Linguistic Analysis |
| LING 3452 | Syntax |
| LING 3454 | History of English |


| LING 3456 | Language and Gender |  |
| :---: | :---: | :---: |
| LING 3458 | Topics in Linguistics |  |
| Comparative Course |  |  |
| Complete one of the following: |  | 4 |
| ENGL 1120 | Trouble in Utopia |  |
| ENGL 1130 | Animals, Objects, Humans |  |
| ENGL 1450 | Reading and Writing in the Digital Age |  |
| ENGL 1500 | British Literature to 1800 |  |
| ENGL 1501 | British Literature 1800 to Present |  |
| ENGL 1502 | American Literature to 1865 |  |
| ENGL 1503 | American Literature 1865 to Present |  |
| ENGL 1701 | Global Literature 1500 to Present |  |
| ENGL 2370 | The Modern Short Story |  |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| ENGL 4070 | Topics in Genre |  |
| ENGL 4684 | Topics in Postcolonial Literature |  |
| ENGL 4688 | Topics in Comparative Textual Studies |  |
| Writing |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| $\begin{aligned} & \text { ENGL } 4710 \\ & \text { or ENGL } 4720 \end{aligned}$ | Capstone Seminar <br> Capstone Project | 4 |

## Integrative Requirement

| Code <br> Integrative Courses | Title | Hours |
| :--- | :--- | ---: |
| CINE 3500 | Film Theory | 4 |
| ENGL 1450 | Reading and Writing in the Digital Age | 4 |
| or ENGL 3340 | Technologies of Text |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Media and Screen Studies and Journalism, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Media and Screen Studies Requirements |  |
| :--- | ---: |
| Code Title |  |
| Introduction to College  <br> MSCR 1000 Media and Screen Studies at <br>  Northeastern |  |

## Introduction to Media Studies

| MSCR 1220 | Media, Culture, and Society | 4 |
| :--- | :--- | :--- |
| Introduction to Screen Theory |  |  |
| MSCR 2220 | Understanding Media and Film | 4 |


| Advanced Theory |  |  |
| :--- | :--- | :--- |
| MSCR 4623 | Theories of Media and Culture | 4 |

Media and Screen Electives
Complete five of the following:

| CINE 2350 | History of Film |
| :--- | :--- |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3446 | Topics in Documentary Production |
| CINE 3900 | Film and Psychoanalysis |
| CINE 3920 | Topics in Film Studies |
| MSCR 1230 | Introduction to Film Production |


| MSCR 1310 | Introduction to Digital Media Culture |  |
| :---: | :---: | :---: |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Advanced Media and Screen Electives |  |  |
| Complete two of the following: |  | 8 |
| CINE 3500 | Film Theory |  |
| CINE 4500 | Modernism/Modernity and Film |  |
| CINE 4550 | Cinema Studies Seminar |  |
| CINE 4560 | Directing the Short Fiction Film |  |
| MSCR 4206 | Age, Media, and Representation |  |
| MSCR 4208 | TV History |  |
| MSCR 4602 | Media and Democracy |  |
| MSCR 4610 | The Networked Self |  |
| MSCR 4622 | Special Topics in Media and Screen Studies |  |
| MSCR 4685 | Interactive Documentary |  |
| MSCR 4970 | Junior/Senior Honors Project 1 |  |
| MSCR 4971 | Junior/Senior Honors Project 2 |  |
| MSCR 4991 | Research |  |
| MSCR 4992 | Directed Study |  |
| MSCR 4993 | Independent Study |  |
| MSCR 4996 | Experiential Education Directed Study |  |
| ARTD 4582 |  |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |

## Journalism Requirements <br> Code Title Hours

## Journalism Foundations

| JRNL 1101 | Journalism 1: Fundamentals of <br> Reporting (A grade of C or higher is <br> required) | 4 |
| :--- | :--- | :--- |
| JRNL 1150 | Interpreting the Day's News | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting (A <br> grade of C or higher is required) | 4 |
| Journalism and Advanced Writing |  |  |
| JRNL 2301 | Visual Storytelling in Journalism (A <br> grade of C or higher is required) | 4 |

## Television News

| JRNL 5307 | Video Newswriting | 4 |
| :--- | :--- | :---: |
| JRNL 5314 | Video News Production 1 | 4 |
| Documentary Production | Documentary Production | 4 |
| JRNL 5309 |  | 4 |
| Ethics and Issues | Journalism Ethics and Issues | 4 |
| JRNL 4650 |  | 4 |
| Journalism Elective |  |  |
| Complete one course in the following range: |  |  |

JRNL 2000 to JRNL 5999

## Integrative Requirement

The following course also counts toward the media and screen studies requirements above:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Course |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Media and Screen Studies and Philosophy, BA

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

 Code Title Hours Introduction to College| MSCR 1000 | Media and Screen Studies at <br>  <br> Northeastern | 1 |
| :--- | :--- | :--- |

Introduction to Media Studies
MSCR $1220 \quad$ Media, Culture, and Society 4
Introduction to Screen Theory
MSCR $2220 \quad 4$

## Advanced Theory

MSCR 4623 Theories of Media and Culture 4

| Complete four of the following: |  | 16 |
| :---: | :---: | :---: |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2305 | Digital Media Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| CINE 1200 | Exploring the Humanities through Film |  |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2161 | Video Software Tools |  |
| CINE 2336 | American Film and Culture |  |
| CINE 2350 | History of Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 3446 | Topics in Documentary Production |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Advanced Media and Screen Electives |  |  |
| Complete two of the following: |  | 8 |
| MSCR 4206 | Age, Media, and Representation |  |
| MSCR 4208 | TV History |  |
| MSCR 4602 | Media and Democracy |  |
| MSCR 4610 | The Networked Self |  |
| MSCR 4622 | Special Topics in Media and Screen Studies |  |
| MSCR 4685 | Interactive Documentary |  |
| MSCR 4970 | Junior/Senior Honors Project 1 |  |
| MSCR 4971 | Junior/Senior Honors Project 2 |  |
| MSCR 4991 | Research |  |
| MSCR 4992 | Directed Study |  |
| MSCR 4993 | Independent Study |  |
| MSCR 4996 | Experiential Education Directed Study |  |
| CINE 3370 | Contemporary Directions in Cinema |  |
| CINE 3500 | Film Theory |  |
| CINE 3920 | Topics in Film Studies |  |
| CINE 4500 | Modernism/Modernity and Film |  |
| CINE 4550 | Cinema Studies Seminar |  |
| CINE 4560 | Directing the Short Fiction Film |  |

ARTD 4582

| ARTD 4682 | Video in Context: Video and Social |
| :--- | :--- |
| Change |  |

## Philosophy Requirements

Code Title Hours

## Philosophy Required Courses

| PHIL 1115 | Introduction to Logic | 4 |
| :---: | :--- | :---: |
| or PHIL 1215 | Symbolic Logic |  |
| PHIL 2325 | Ancient Philosophy and Political | 4 |
| or POLS 2325 | Thought | Ancient Philosophy and Political Thought |
| PHIL 2330 | Modern Philosophy | 4 |

Intermediate/Advanced Philosophy Elective
Complete one of the following: 4

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |

Philosophy Topics Electives
Complete one of the following: 4

| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in |
| RHIL 4903 | Reminar in Religion |

## Philosophy Electives

Complete four additional electives from the philosophy 16
department.

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| CINE 3500 | Film Theory | 4 |
| or MSCR 3300 | Media Activism |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Major Credit Requirement

Complete 72 semester hours in the major.

## Program Requirement

128 total semester hours required

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Media Studies Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Introduction to College |  |  |
| MSCR 1000 | Media and Screen Studies at Northeastern | 1 |
| Required Courses |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |
| MSCR 4623 | Theories of Media and Culture | 4 |
| MSCR 2220 | Understanding Media and Film | 4 |
| Elective Courses |  |  |
| Complete four of the following: |  | 16 |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2350 | History of Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3920 | Topics in Film Studies |  |
| CINE 3900 | Film and Psychoanalysis |  |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |


| MSCR 3438 | Celebrity Culture |
| :--- | :--- |
| MSCR 3500 | Documentary Storytelling |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |
| Advanced Elective Courses |  |
| Complete two of the following: |  |
| CINE 3500 | Film Theory |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen |
| MSCR 4685 | Studies |
| MSCR 4nteractive Documentary |  |
| MSCR 4971 | Junior/Senior Honors Project 1 |
| MSCR 4991 | Junior/Senior Honors Project 2 |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |

## Political Science Requirements

Code Title Hours
Required Courses

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |

## Political Thought

Complete one of the following: 4

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Politics in Media/Art
Complete two of the following: 8

| POLS 2333 | Politics and Film |
| :---: | :--- |
| POLS 2368 | Music and Politics |
| POLS 2336 | Politics and the Arts |
| Elective Courses |  |
| Complete two POLS courses, or complete a concentration |  |

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below ( p . ).

- Law and Legal Studies (p. )

Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| MSCR 4602 | Media and Democracy | 4 |
| POLS 3320 | Politics and Mass Media | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement



CONCENTRATION IN LAW AND LEGAL STUDIES
Code Title Hours
Complete four of the following: 16

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## Media and Screen Studies and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

| Code Title <br> Introduction to College  | Hours |  |
| :--- | :--- | ---: |
| MSCR 1000 | Media and Screen Studies at <br> Northeastern | 1 |
| Introduction to Media Studies |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |
| Introduction to Screen Theory | 4 |  |
| MSCR 2220 | Understanding Media and Film |  |
| Advanced Theory |  | 4 |
| MSCR 4623 | Theories of Media and Culture | 4 |

## Media and Screen Electives

Complete four of the following: 16

| MSCR 1230 | Introduction to Film Production |
| :---: | :---: |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen Studies |
| MSCR 3300 | Media Activism |
| MSCR 3402 | Television and Society |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| CINE 2160 | Narrative Filmmaking |
| CINE 2350 | History of Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 3446 | Topics in Documentary Production |
| CINE 3900 | Film and Psychoanalysis |
| CINE 3920 | Topics in Film Studies |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |

Advanced Media and Screen Electives
Complete two of the following:

| MSCR 4206 | Age, Media, and Representation |
| :--- | :--- |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br> Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| CINE 3500 | Film Theory |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |


| Sociology Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Core Courses in Sociology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| SOCL 4600 | Senior Seminar | 4 |

Foundational Competency-Courses Numbered SOCL 1200 to SOCL 2900

Complete two of the following: 8

| SOCL 1228 | Social Problems |
| :--- | :--- |
| SOCL 1232 | American Society |
| SOCL 1245 | Sociology of Poverty |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1275 | Social Stratification |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 1297 | Sociology of Popular Culture |
| SOCL 2205 | Law and Social Justice |
| SOCL 2268 | Social Movements |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 2450 | Class, Power, and Social Change |

Foundational Competency-Courses Numbered 3000 to 4999
Complete one of the following:

| ANTH 3120 | Consumer Cultures |
| :--- | :--- |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| ANTH 4580 | Special Topics in Anthropology |
| SOCL 3460 | Sociology of Latino Society |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 4518 | Law and Social Issues |
| SOCL 4520 | Race, Class, and Gender |


| SOCL 4522 | Political Ecology and Environmental <br> Justice |
| :--- | :--- |
| SOCL 4580 | Special Topics in Sociology |
| SOCL 4996 | Experiential Education Directed Study |

Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Courses |  | 4 |
| MSCR 3437 | Media and Identity | 4 |
| SOCL 1246 | Environment and Society |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Media and Screen Studies and Theatre, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introduction to College |  |  |
| MSCR 1000 | Media and Screen Studies at | 1 |
|  | Northeastern |  |

Introduction to Media Studies
MSCR 1220 Media, Culture, and Society 4

Introduction to Screen Studies
MSCR $2220 \quad 4$

Advanced Theory
MSCR 4623 Theories of Media and Culture 4

Media and Screen Studies Electives
Complete four of the following:
CINE 2160 Narrative Filmmaking
CINE 2350 History of Film
CINE $2394 \quad$ Modern Film and Global Culture
CINE 3389 Screenwriting

| CINE 3392 | Gender and Film |  |
| :---: | :---: | :---: |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3920 | Topics in Film Studies |  |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2305 | Digital Media Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| MSCR 2895 | Film Analysis |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Advanced Media and Screen Electives |  |  |
| Complete two of the following: |  | 8 |
| CINE 3500 | Film Theory |  |
| CINE 4500 | Modernism/Modernity and Film |  |
| CINE 4550 | Cinema Studies Seminar |  |
| CINE 4560 | Directing the Short Fiction Film |  |
| MSCR 4206 | Age, Media, and Representation |  |
| MSCR 4208 | TV History |  |
| MSCR 4602 | Media and Democracy |  |
| MSCR 4610 | The Networked Self |  |
| MSCR 4622 | Special Topics in Media and Screen Studies |  |
| MSCR 4685 | Interactive Documentary |  |
| MSCR 4970 | Junior/Senior Honors Project 1 |  |
| MSCR 4971 | Junior/Senior Honors Project 2 |  |
| MSCR 4991 | Research |  |
| MSCR 4992 | Directed Study |  |
| MSCR 4993 | Independent Study |  |
| MSCR 4996 | Experiential Education Directed Study |  |
| ARTD 4582 |  |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |

## Theatre Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Foundational Stages |  | 4 |
| THTR 1101 | Introduction to Theatre | 4 |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |


| THTR 1270 | Introduction to Theatrical Design | 4 |
| :---: | :---: | :---: |
| THTR 2325 | From Script to Stage | 4 |
| Theatre Texts and Context |  |  |
| Choose one of the following: |  | 4 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2340 | Theatre and Society |  |
| Making Theatre |  |  |
| THTR 1100 | Production Experience 1 | 1 |
| THTR 2000 | Production Experience 2 | 1 |
| Intermediate or Advanced Technique |  |  |
| Choose two of | lowing: | 8 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2330 | Playwriting |  |
| THTR 2340 | Theatre and Society |  |
| THTR 2342 | Acting 2 |  |
| THTR 2345 | Acting for Cameras |  |
| THTR 2346 | Viewpoints |  |
| THTR 2360 | Stage Makeup |  |
| THTR 2370 | Lighting Design for the Stage |  |
| THTR 2380 | Costume Design |  |
| THTR 2400 | Scenic Design |  |
| THTR 2600 | Voice and Speech for the Actor |  |
| THTR 3450 | Acting 3-Playing Shakespeare |  |
| THTR 3550 | Directing for the Stage |  |
| THTR 3570 | Musical Theatre Technique |  |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Media and Screen Studies Capstone |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Theatre Capstone |  | 4 |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Media and Screen Studies and Theatre, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Media and Screen Studies Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Introduction to College |  |  |
| MSCR 1000 | Media and Screen Studies at Northeastern | 1 |
| Introduction to Media Studies |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |
| Introduction to Screen Studies |  |  |
| MSCR 2220 | Understanding Media and Film | 4 |
| Advanced Theory |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Media and Screen Studies Electives |  |  |
| Complete four of the following: |  | 16 |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2350 | History of Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3920 | Topics in Film Studies |  |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2305 | Digital Media Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |

## Advanced Media and Screen Electives

Complete two of the following:

| CINE 3500 | Film Theory |
| :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br> Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |

## Theatre Requirements

Code Title Hours

## Foundational Stages

THTR 1101 Introduction to Theatre 4
THTR 1120 Acting $1 \quad 4$
THTR 1131 Technical Theatre $1 \quad 4$
THTR 1270 Introduction to Theatrical Design 4

THTR $2325 \quad$ From Script to Stage 4
Theatre Texts and Context
Choose one of the following: 4

| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :--- | :--- |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2320 | America Onstage: Dramatizing the <br> Dream |
| THTR 2340 | Theatre and Society |

Making Theatre
THTR 1100 Production Experience $1 \quad 1$
THTR 2000 Production Experience $2 \quad 1$

Intermedate or Advanced Technique
Choose two of the following: 8

| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :--- | :--- |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2320 | America Onstage: Dramatizing the <br> Dream |
| THTR 2330 | Playwriting |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |


| THTR 2380 | Costume Design |
| :--- | :--- |
| THTR 2400 | Scenic Design |
| THTR 2600 | Voice and Speech for the Actor |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |


| Code | Title | Hours |
| :---: | :---: | :---: |
| Media and Screen Studies Capstone |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Theatre Capstone |  |  |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Cinema Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| MSCR 2895 | Film Analysis | 4 |
| :--- | :--- | :--- |
| CINE 3500 | Film Theory | 4 |

## Elective Courses

Complete three of the following: 12

| ARTH 2212 | Survey of the Still and Moving Image |
| :--- | :--- |
| ARTH 2217 | American Animation Film |
| CINE 2336 | American Film and Culture |
| CINE 2350 | History of Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3370 | Contemporary Directions in Cinema |
| CINE 3392 | Gender and Film |
| CINE 4500 | Modernism/Modernity and Film |
| ENGL 3488 | Film and Text |
| ENGL 4080 | Topics in Film |
| HIST 1279 | History of the American Film Industry |
| HIST 2386 | History of Soviet Cinema |
| MUSC 1113 | Film Music |

## GPA Requirement

2.000 GPA required in the minor

## Film Production, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Course

| MSCR 1230 | Introduction to Film Production | 4 |
| :---: | :---: | :---: |
| Electives |  |  |
| Complete four of the following: |  | 16 |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTD 4582 |  |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |
| CINE 3389 | Screenwriting |  |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3851 | Film Festivals: Exhibition and Distribution |  |
| CINE 4560 | Directing the Short Fiction Film |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3500 | Documentary Storytelling |  |
| MSCR 4685 | Interactive Documentary |  |
| THTR 2345 | Acting for Cameras |  |

## GPA Requirement

2.000 GPA required in the minor

## Media and Screen Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Courses used in the major may not be used in the minor in media and screen studies.

## Required Courses

| MSCR 1220 | Media, Culture, and Society | 4 |
| :--- | :--- | :--- |
| MSCR 2220 | Understanding Media and Film | 4 |

## Elective Courses

Complete three of the following: 12
MSCR 2000 to MSCR 5999

| CINE 2350 | History of Film |
| :--- | :--- |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3500 | Film Theory |
| CINE 3920 | Topics in Film Studies |

## GPA Requirement

2.000 GPA required in the minor

## Music

Website (http://www.northeastern.edu/camd/music)
Daniel Strong Godfrey, PhD
Professor and Chair
351 Ryder Hall
617.373.2440
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The Department of Music offers its music majors, music minors, and combined majors a cross-disciplinary approach to the study and practice of music, underscored by real-world experiential learning and cuttingedge technology. The music faculty are dedicated to three continuously interacting and integrated dimensions: the creation of music; its production and promotion; and the study of its history, meaning, and impact on cultures around the globe-past, present, and future.

There are three concentrations in music: the BA in Music, the BS in Music with Concentration in Music Composition and Technology, and the BS in Music with Concentration in Music Industry. Students in all three concentrations begin with a core of shared offerings, including a uniquely probing, cross-cultural, and interdisciplinary introduction to music, Music in Everyday Life (MUSC 1001), together with shared requirements in introductory theory and musicianship. With a common perspective offered by these courses, students then branch out to focus on their individual disciplines but also to interact and bring unique aspects of their discipline together in a collaborative learning environment with other students.

Our signature program is the BA in Music, designed to offer a variety of flexible advising paths that allow a focus on history, theory, ethnomusicology, performance, or other directions tailored to the students' individual interests.

The BS in Music with Concentration in Music Composition and Technology, rooted primarily in the Western art music tradition, focuses on composition for acoustic and electronic instruments and for combined and/or interactive live and digital sources, while exploring ways in which the art form continues to challenge and enhance our notion of composition, performance, and music as integral forces in the cultures we encounter.

The BS in Music with Concentration in Music Industry, the first such undergraduate program offered in Boston, is designed for students with an interest in fields such as artist management; the music products industry; the recording industry; arts administration; contracting and legal issues; and broadcast, mobile, and online media technologies.

Through an exchange program with the New England Conservatory, the Department of Music also offers a joint certificate in performance, where students may attend classes and take performance instruction at the Conservatory in combination with offerings from the Northeastern University music catalog (see below).

While some music courses are designed for music majors, music minors and combined majors in music, and a variety of other disciplines, the Department of Music also offers elective survey courses and other study opportunities open to students across the Northeastern University campus. Also available are private lessons in a wide variety of instruments and voice, including a focus on genres ranging from traditional concert music to jazz to fusion, rock, and a variety of popular idioms.

An extensive concert series presents not only guest performers and ensembles from around the world but also performances by the Northeastern University Symphony Orchestra; the Northeastern University Wind Ensemble and Concert Band; the Northeastern University Choral Society; and the Jazz Ensemble, Jazz Choir, Contemporary Music Ensemble, Blues/Rock Fusion Ensemble, Rock Ensemble, Chamber Music Ensembles, and individual student recitals, along with an array of studentrun music groups.

In addition to co-op, Dialogues of Civilization, and a range of other opportunities for experiential learning and study abroad, students may immediately begin to participate in student organizations, such as Greenline Records and other groups, that allow students to actively pursue their passions and aspirations.

Students may double-concentrate in music industry and music composition and technology. While students are encouraged to consider double-majoring in the BA in Music and other disciplines outside music, the BA in Music cannot be combined with the Concentration in Music Industry or the Concentration in Music Composition and Technology.

## Academic Progression Standards

Students must maintain at least a B- average in all major courses and 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; those who remain on probation for two consecutive semesters will be dropped from the major.

## Preapproved Template Programs in Music and in Music Industry

The Department of Music offers preapproved template programs in the following areas:

- Music
- Music composition and technology
- Music industry
- Music technology

Each template program may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## NEC/NU Joint Certificate Programs in Music Performance

The School of Continuing Education at the New England Conservatory (NEC) and the Department of Music at Northeastern University (NU) jointly offer a General Certificate of Merit in Music Performance (24 credits) and a Professional Studies Certificate in Music Performance ( 48 credits). These programs are geared toward NU undergraduate and graduate students who are interested in improving their abilities to perform on an instrument or voice in the classical or jazz styles.

The certificate in music performance is in addition to the student's NU undergraduate or graduate degree-it is an entirely separate and distinct credential. Credits for courses toward the music performance certificate are accumulated and billed separately from credits toward NU undergraduate or graduate degree programs and are not eligible for financial aid. However, NU courses being taken toward a major, a minor, or as purely elective credits in undergraduate degree programs may also be applied toward the performance certificate.

Courses are offered at NEC (predominantly related to music performance) and at NU (predominantly related to music history and music theory). NEC courses are scheduled during evenings and weekends.

## Programs <br> Bachelor of Arts (BA)

- Music (p. 140)


## Bachelor of Science (BS)

- Music with Concentration in Music Composition and Technology (p. 142)
- Music with Concentration in Music Industry (p. 144)
- Computer Science and Music with Concentration in Music Composition and Technology (p. 147)
- Music and Communication Studies with Concentration in Music Industry (p. 149)
- Physics and Music with a Concentration in Music Composition and Technology (p. 150)


## Minor

- Music (p. 151)
- Ethnomusicology (p. 151)
- Music Composition (p. 152)
- Music Industry (p. 152)
- Music Performance (p. 152)
- Music Recording (p. 153)
- Musical Theatre (p. 154) (offered by the Department of Theatre)
- Songwriting (p. 154)


## Certificate

- NEC/NU Joint Certificate Program-General Certificate of Merit in Music Performance (p. 154)
- NEC/NU Joint Certificate Program-Professional Studies Certificate in Music Performance (p. 155)


## Music, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attribute IC is met through the major course requirements. Students must satisfy EI, FQ, AD, DD, SI, ND and ER through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Introduction to College

MUSC 1000
Music at Northeastern
Music Theory and Musicianship
MUSC $1201 \quad$ Music Theory 1

MUSC 1202
Music Theory 2

## Music in Context

Choose one from each category below. At least three choices must be 2000-level or above. Two must be writing intensive. Courses may not double-count across the five areas.

## Introductory Class

MUSC 1001 | Music in Everyday Life (Music in |
| :--- |
| Everyday Life) |

Traditional
Complete one of the following: 4

| MUSC 1105 | Music of the USA |
| :--- | :--- |
| MUSC 1106 | Women in Music |
| MUSC 1108 | Music and Poetry |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1136 | What's Playing at Symphony? |
| MUSC 2311 | Historical Traditions: America |
| MUSC 2312 | Historical Traditions: Classical |
| MUSC 2107 | Introduction to Opera |
| MUSC 2308 | Principles of Music Literature |
| MUSC 3470 | War and Music |
| MUSC 3550 | Historical Traditions: Special Topics |
| Ethnomusicology |  |
| Complete one of the following: | 4 |


| MUSC 1103 | Music as a Social Expression |
| :--- | :--- |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1127 | Introduction to World Music |
| MUSC 1128 | Music of Africa |
| MUSC 1129 | Music of the Middle East |
| MUSC 1131 | Music of Latin America and the |
| Caribbean |  |
| MUSC 1132 1143 | Music of the Jewish People |
| MUSC 2101 | Music in Culture |
| MUSC 2130 | Music of Asia Music |
| MUSC 2308 | Principles of Music Literature |
| MUSC 2313 | Historical Traditions: World |
| MUSC 3550 | Historical Traditions: Special Topics |

Contemporary
Complete one of the following: 4

| MUSC 1106 | Women in Music |
| :--- | :--- |
| MUSC 1110 | Music in Popular Culture |
| MUSC 1117 | George Gershwin |
| MUSC 1126 | New Directions in Music |
| MUSC 1135 | Coltrane |
| MUSC 1141 | Wired for Sound |
| MUSC 2101 | Black Popular Music |
| MUSC 2308 | Principles of Music Literature |
| MUSC 2316 | Historical Traditions: History of the |
| MUSC 3560 | Music Industry |
| MUSI 3401 | Historical Traditions: Music in since 1900 Music Industry |
| MUST 2315 | History of Electronic Music |


| Complete one of the following 4SH courses or choose four |
| :--- |
| 1SH Ensembles from the list below: |
| MUST 1220 | | MUtroduction to Music Technology |  |
| :--- | :--- |
| MUST 1301 | Introduction to Composition |
| MUSC 2208 | Jazz Improvisation |
| MUSC 2209 | Conducting |
| MUSC 2210 | Songwriting 1 |
| MUSC 3337 | Writing about Music |
| MUSC 2150 | Making a Musical: Analysis, Craft, and |
| Ensembles: | Creation (Making a Musical: Analysis, |
| MUSC 1904 | Chorus and Creation) |
| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |

## Music Electives

Complete three additional courses in Music (MUSC, MUSI or MUST). At least two must be at the 2000-level or higher.

## Major Credit Requirement

Complete 43 semester hours in the major.
Minimum 2.667 GPA is required in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Sample Four Years, No Co-op

Year 1

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| MUSC 1001 (Music |  |  |
| in Everyday Life) | 4 MUSC 1202 | 4 |
| MUSC 1201 | M Music in Context <br> Course | 4 |
| ENGW 1111 | 4 Music Elective | 4 |
| Elective | 4 Elective | 4 |
| MUSC 1000 | 1 | 16 |
|  | 17 | 4 |

## Year 2

Fall
Hours Spring
4 Music in Context
course

Music in Context course

Hours

4

| Music elective | 4 Music elective | 4 |
| :--- | ---: | ---: |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Year 3 |  |  |
| Fall | Hours Spring | Hours |
| Music in Context | 4 Elective | 4 |
| course | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 16 | 16 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Elective | 4 Capstone course | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 129

## Sample Five Years, Two Co-ops

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MUSC 1001 <br> (Music In | 4 MUSC 1202 | 4 Vacation | Vacation |  |
| Everyday <br> Life) |  |  |  |  |
| MUSC 1201 | 4 Music in Context elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MUSC 1000 | 1 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Music in Context course | 4 Co-op 1 | Co-op 1 | Vacation |  |
| Music elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EEAM 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 0 |

Year 3

Music in
Context
course

| Music <br> elective | 4 |
| :--- | :--- |
| Elective | 4 |


| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Music in <br> Context <br> course | 4 Elective | 4 Vacation |  |  |
| Music <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
| Elective | 4 Elective | 4 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Elective | 4 Capstone | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 130

## Music with Concentration in Music Composition and Technology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attributes El and IC are met through the major course requirements. Students must satisfy FQ, AD, DD, SI, ND and ER through electives.

## General Music Requirements

| Introduction to College |  |  |
| :--- | :--- | :--- |
| MUSC 1000 | Music at Northeastern | 1 |
| Music Theory and Musicianship | 4 |  |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSC 1202 | Music Theory 2 | 4 |
| MUSC 2303 | Tonal Form | 4 |
| MUSC 2304 | Music Theory 4 | 4 |
| MUSC 3541 | Music Analysis Seminar |  |

## Music in Context

A grade of $C$ or higher is required in Music in Context courses.
Introductory Class
MUSC 1001
Music in Everyday Life (Music In
4

Traditional

| MUSC 2312 | Historical Traditions: Classical |
| :--- | :--- |
| Ethnomusicology |  |
| Complete one of the following: |  |
| MUSC 1103 | Music as a Social Expression |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1128 | Music of Africa |
| MUSC 1129 | Music of the Middle East |
| MUSC 1131 | Music of Latin America and the <br> MUSC 1132 |
| MUSC 1143 | Music of the Jewish People |
| MUSC 2101 | Black Popular Music |
| MUSC 2130 | Music of Asia |
| MUSC 2308 | Principles of Music Literature |
| MUSC 2313 | Historical Traditions: World |
| MUSC 3550 | Historical Traditions: Special Topics |

Contemporary

| MUSC 3560 | Historical Traditions: Music since 1900 |  |
| :--- | :--- | :--- |
| Composition |  | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUSC 1250 | Instrumentation and Orchestration | 4 |
| MUSC 2420 | Music Composition Seminar 1 | 4 |
| Composition Lessons |  |  |

Composition Lessons
Complete the following three times:
MUSC 1903 Composition Lessons

## Ensemble

Complete two music ensembles: 2-5

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |

## Music Technology Requirements

| MUST 1220 | Introduction to Music Technology | 4 |
| :--- | :--- | :--- |
| MUST 2101 | (Pending Approval: Music/Audio <br>  <br>  <br> Computing) | 4 |
| MUST 3421 | Digital Audio Processing | 4 |

## Music Electives

Complete two of the following:

| MUSC 5101 | (Composing With Image and Sound) |
| :--- | :--- |
| MUST 3101 | (Pending Approval: MIDI Orchestration) |


| MUST 3422 | Music Composition Seminar 2 |
| :--- | :--- |
| MUST 3540 | Special Topics in Music Technology |
| MUST 4520 | Interactive Real-Time Performance |
| MUST 4610 | Composition for Electronic Instruments |
| Capstone |  |


| MUST 4611 | Music Technology Capstone/Senior |
| :--- | :--- |
| Recital |  |

## Music Composition and Technology Credit Requirement Complete 77 semester hours in the major.

A minimum 2.667 GPA is required in the major courses.

## Program Requirement

129 total semester hours required

## Plan of Study

## Sample Four Years, No Co-op

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MUSC 1001 | 4 MUSC 1202 | 4 Vacation | Vacation |  |
| (Music in <br> Everyday <br> Life) |  |  |  |  |
| MUSC 1201 | 4 MUST 1301 | 4 |  |  |
| MUST 1220 | 4 MUST 3421 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MUSC 1000 | 1 <br> Music <br> Ensemble | 1 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MUSC 2303 | 4 MUSC 1250 | 4 Vacation | Vacation |  |
| MUSC 2420 | 4 MUSC 2304 | 4 |  |  |
| MUST 2101 <br> (Music | 4 MUSC 2312 | 4 |  |  |
| Audio <br> Computing) |  |  |  |  |
| Elective | 4 Elective | 4 |  |  |
| Music <br> Ensemble | 1 MUSC 1903 | 1 |  | 0 |

Year 3

| Fall | Hours | Spring |  | rs | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MUSC 3541 |  | Ethnomusic elective | $\log y$ | 4 | Vacation |  | Vacation |  |
| MUSC 3560 | 4 | Elective |  | 4 |  |  |  |  |
| Music Tech Elective | 4 | Elective |  | 4 |  |  |  |  |
| ENGW 3314 | 4 | Elective |  | 4 |  |  |  |  |
| MUSC 1903 | 1 | MUSC 1903 |  | 1 |  |  |  |  |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Music Tech | 4 MUST 4611 | 4 |


| Elective | 4 Elective | 4 |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 134
4 Sample Four Years, One Co-op in Spring/Summer 1 Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MUSC 1001 | 4 MUSC 1202 | 4 Vacation | Vacation |  |
| (Music in |  |  |  |  |
| Everyday |  |  |  |  |
| Life) |  |  |  |  |
| MUSC 1201 | 4 MUST 1301 | 4 |  |  |
| MUST 1220 | 4 MUST 3421 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MUSC 1000 | 1 Music ensemble | 1 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MUSC 2303 | 4 MUSC 1250 | 4 Vacation | Elective | 4 |
| MUSC 2420 | 4 MUSC 2304 | 4 | Elective | 4 |
| Elective | 4 MUSC 2312 | 4 |  |  |
| MUST 2101 | 4 Elective | 4 |  |  |
| Music <br> ensemble | 1 MUSC 1903 | 1 |  |  |
|  | 17 | 17 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MUSC 3541 | 4 Co-op | Co-op | Elective | 4 |
| MUSC 3560 | 4 |  | Elective | 4 |
| Music Tech <br> Elective | 4 |  |  |  |
| ENGW 3314 | 4 |  |  |  |
| MUSC 1903 | 1 |  |  | 8 |
| EEAM 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

## Year 4



Total Hours: 135

## Sample Four Years, Two Co-ops in Spring/Summer 1

Year 1


| Everyday <br> Life) |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MUSC 1201 | 4 MUSC 1250 | 4 Elective | 4 |  |
| MUST 1220 | 4 MUST 1301 | 4 |  |  |
| ENGW 1111 | 4 MUST 3421 | 4 |  |  |
| MUSC 1000 | 1 Music <br> ensemble | 1 | 8 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MUST 2101 | 4 Co-op | Co-op | Elective | 4 |
| (Music/ |  |  |  |  |
| Audio <br> Computing) |  |  |  |  |
| MUSC 2303 | 4 Elective | 4 | Elective | 4 |
| MUSC 3560 | 4 |  |  | 1 |
| MUSC 2420 | 4 |  |  |  |
| Music <br> ensemble | 1 |  |  | 9 |
| EEAM 2000 | 1 | 4 | 0 |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MUSC 2312 | 4 ENGW 3314 | 4 Co-op 2 | Elective | 4 |
| Elective | 4 Co-op 2 |  | Elective | 4 |
| Music Tech <br> Elective | 4 |  |  |  |
| MUSC 1903 | 1 |  |  |  |
| MUSC 3541 | 4 |  |  | 8 |
|  | 17 | 4 | 0 |  |

Year 4

| Fall Hour | rs Spring | Hours |
| :---: | :---: | :---: |
| Ethnomusicology elective | 4 MUSC 2304 | 4 |
| Music Tech Elective | 4 MUST 4611 | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| MUSC 1903 | 1 |  |
| 1 | 7 | 16 |

Total Hours: 135

## Sample Five Years, Two Co-ops in Spring/Summer 1

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | :---: |
| MUSC 1001 | 4 MUSC 1202 | 4 Vacation | Vacation |  |
| (Music in |  |  |  |  |
| Everyday |  |  |  |  |
| Life) |  |  |  |  |
| MUSC 1201 | 4 MUST 1301 | 4 |  |  |


| MUST 1220 | 4 MUST 3421 | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MUSC 1000 | 1 Music <br> ensemble | 1 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MUSC 2303 | 4 MUSC 1250 | 4 Vacation | Vacation |  |
| MUSC 3560 | 4 MUSC 2312 | 4 |  |  |
| MUSC 2420 | 4 MUSC 2304 | 4 |  |  |
| MUST 2101 <br> (Music/ | 4 Elective | 4 |  |  |
| Audio <br> Computing) | 1 MUSC 1903 | 1 |  | 0 |
| Music <br> ensemble | 17 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MUSC 3541 | 4 Co-op 1 | Co-op 1 | Vacation |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| MUSC 1903 | 1 |  | 0 | 0 |
| EEAM 2000 | 1 | 0 | 0 |  |
|  | 18 |  |  |  |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Music Tech | 4 MUST 4611 | 4 |
| Elective |  |  |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Total Hours: 135 |  |  |

## Music with Concentration in Music Industry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath 1-8 attributes AD and SI are met through the major course requirements. In order to graduate, the student must meet EI, FQ, IC, DD, $N D$, and $E R$ in their electives.

## Music Industry Requirements

Introduction to College

| MUSC 1000 | Music at Northeastern | 1 |
| :--- | :--- | ---: |
| Music Theory Requirement | 4 |  |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSI 1204 | Analyzing Popular Genres | 20 |
| Music in Context |  |  |
| Choose one from each category below; at least three must be | 20 |  |
| 2000 level or above; at least two must be writing-intensive. |  |  |
| Courses may not double-count across the five areas. |  |  |
| Introductory Course |  |  |
| MUSC 1001 | Music in Everyday Life (Music In |  |
| Traditional (choose one): |  |  |
| MUSC 1105 | Music of the USA |  |
| MUSC 1106 | Women in Music |  |
| MUSC 1108 | Music and Poetry |  |
| MUSC 1109 | Introduction to Art, Drama, and Music |  |
| MUSC 1136 | What's Playing at Symphony? |  |
| MUSC 2311 | Historical Traditions: America |  |
| MUSC 2312 | Historical Traditions: Classical |  |
| MUSC 2107 | Introduction to Opera |  |
| MUSC 2308 | Principles of Music Literature |  |
| MUSC 3470 | War and Music |  |
| MUSC 3550 | Historical Traditions: Special Topics |  |
| Ethnomusicology (choose one): |  |  |


| MUSC 1103 | Music as a Social Expression |
| :--- | :--- |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1127 | Introduction to World Music |
| MUSC 1128 | Music of Africa |
| MUSC 1129 | Music of the Middle East |
| MUSC 1131 | Music of Latin America and the <br> Caribbean |
| MUSC 1132 | Music of the Jewish People |
| MUSC 1143 | Music in Culture |
| MUSC 2101 | Black Popular Music |
| MUSC 2130 | Music of Asia |
| MUSC 2308 | Principles of Music Literature |
| MUSC 2313 | Historical Traditions: World |
| MUSC 3550 | Historical Traditions: Special Topics |
| Contemporary (choose one): |  |
| MUSC 1106 | Women in Music |
| MUSC 1110 | Music in Popular Culture |
| MUSC 1117 | George Gershwin |


| MUSC 1126 | New Directions in Music |
| :--- | :--- |
| MUSC 1135 | Coltrane |
| MUSC 1141 | Wired for Sound |
| MUSC 1201 | Music Theory 1 |
| MUSC 2308 | Principles of Music Literature |
| MUSC 2316 | Historical Traditions: History of the <br>  <br>  <br> MusC 3560 Industry |
| MUSI 3401 | Historical Traditions: Music since 1900 |
| MUST 2315 | History of Electronic Music |
| Creative (choose one): |  |
| MUST 1220 | Introduction to Music Technology |
| MUST 1301 | Introduction to Composition |
| MUSC 2208 | Jazz Improvisation |
| MUSC 2209 | Conducting |
| MUSC 2210 | Songwriting 1 |
| MUSC 3337 | Writing about Music |
| Music Ensemble |  |

Complete two music ensembles: 2-5

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |
| Music Industry |  |
| MUSI 1230 | Introduction to Music Industry |

Music Industry Electives
Complete five of the following: 20

| MUSC 2210 | Songwriting 1 |
| :--- | :--- |
| MUSI 2231 | Music Licensing for Media |
| MUSI 2232 | Music Recording 1 |
| MUSI 2233 | Music in the Online and Mobile <br> Environment |
| MUSI 2330 | Performing Arts Administration |
| MUSI 2332 | Music Publishing and Royalties |
| MUSI 2341 | Music Supervision 1 |
| MUSI 2540 | Special Topics in Music Industry |
| MUSI 3332 | Artist Management |
| MUSI 3333 | The Record Industry |
| MUSI 3334 | Music Products Industry |
| MUSI 3335 | Copyright Law for Musicians |
| MUSC 3337 | Writing about Music |
| MUSI 3338 | Music Industry Marketing and |


| MUSI 3340 | Concert Promotion and Venue <br> Management |
| :--- | :--- |
| MUSI 3401 | Hip Hop in the Music Industry |
| MUSI 4530 | Music Entrepreneurship |
| MUST 1220 | Introduction to Music Technology |
| MUST 3421 | Digital Audio Processing |

## Business Course Requirements

| Economics |  |
| :---: | :---: |
| ECON 1115 | Principles of Macroeconomics |
| ECON 1116 | Principles of Microeconomics |
| Accounting |  |
| ACCT 1209 | Financial Accounting and Reporting |
| Business Electives |  |
| Complete two business courses from the following subjec areas: |  |
| ACCT, BU MGSC, M | , FINA, HRMG, INTB, MGMT, ORGB, G, SCHM, or STRT |

## Experiential Learning for Music Industry

MUSI 4601 Seminar in Music Industry

## Music Industry Major Credit Requirement

Complete 78 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MUSC 1001 | 4 MUSC 1201 | 4 Vacation | 0 Vacation | 0 |
| (Music In |  |  |  |  |
| Everyday |  |  |  |  |
| Life) |  |  |  |  |
| MUSC 1119 | 4 ENGW 1111 | 4 |  |  |
| MUSI 1230 | 4 ECON 1115 | 4 |  |  |
| MATH 1215 | 4 Music | 4 |  |  |
|  | Industry |  |  |  |
|  |  |  |  |  |
| MUSC 1000 | 1 Music ensemble | 1 |  |  |
| Music ensemble | 1 |  |  |  |
|  | 18 | 17 | 0 | 0 |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op 1 | O Music in <br> Context <br> course | 4 Elective | 4 Co-op 2 | 0 |
| Music <br> Industry <br> elective | 4 Elective | 4 |  |  |
| Business <br> Elective <br> Elective | 4 |  |  |  |
| 0 | 16 | 8 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op 2 | Music <br> Industry <br> elective | 4 Elective | 4 Co-op 3 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op 3 | 0 MUSI 4601 | 4 |
|  | Music | 4 |
|  | Industry |  |
|  | elective |  |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |
| Total Hours: 132 |  |  |

## Sample Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MUSC 1001 <br> (Music In <br> Everyday <br> Life) | 4 MUSC 1201 | 4 Vacation | 0 Vacation | 0 |
| MUSC 1119 | 4 ECON 1115 | 4 |  |  |
| MUSI 1230 | 4 ENGW 1111 | 4 |  |  |
| MATH 1215 | 4 Music Industry elective | 4 |  |  |
| MUSC 1000 | 1 Music ensemble | 1 |  |  |
| Music ensemble | 1 |  |  |  |
|  | 18 | 17 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MUSI 1204 | 4 Co-op 1 | 0 Co-op 1 | 0 Elective | 4 |
| EEAM 2000 | 1 |  | Elective | 4 |
| ECON 1116 | 4 |  |  |  |


| Music in <br> Context <br> Course | 4 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Elective | 4 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Music Industry elective | 4 Co-op 2 | 0 Co-op 2 | 0 Elective | 4 |
| ACCT 1209 | 4 |  | Business elective | 4 |
| Music in <br> Context <br> Course | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | O Co-op 3 | 0 Vacation | 0 |
| Music <br> Industry <br> elective | 4 Co-op 3 |  |  |  |
| Music in <br> Context <br> course | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| Music in Context course | 4 MUSI 4601 | 4 |
| Music Industry elective | 4 Music Industry elective | 4 |
| Business elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| 16 |  | 16 |

Total Hours: 132

Computer Science and Music with Concentration in Music Composition and Technology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |

A grade of C - or higher is required in each course:

| CS 1800 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | :--- |
| and CS 1801 | Fundamentals of Computer Science 1 | 5 |

and CS 2501 and Lab for CS 2500
CS $2510 \quad$ Fundamentals of Computer Science $2 \quad 5$

| and CS 2511 | and Lab for CS 2510 |
| :--- | :--- |
| CS 2800 | Logic and Computation |

and CS $2801 \quad$ and Lab for CS 2800

| Computer Science Required Courses |  |  |
| :---: | :---: | :---: |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 4300 | Human Computer Interaction (Integrative) | 4 |
| Computer Science Senior Seminar |  |  |
| $\begin{aligned} & \text { CS } 4000 \\ & \text { or THTR } 1170 \end{aligned}$ | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Elective Courses |  |  |
| Complete two cou | s in the following ranges: | 8 |

CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

Music Composition and Technology Courses
Code Title Hours

| Music Theory |  |  |
| :--- | :--- | ---: |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSC 1202 | Music Theory 2 | 4 |
| Music Composition |  | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUST 2315 | History of Electronic Music | 4 |
| MUST 3422 | Music Composition Seminar 2 |  |
| or MUSC 2420 Music Composition Seminar 1 |  |  |
| Music Technology |  | 4 |
| MUST 1220 | Introduction to Music Technology | 4 |
| MUSC 3560 | Historical Traditions: Music since 1900 | 4 |
| MUST 4520 | Interactive Real-Time Performance | 4 |

Electronic Composition and Performance
Complete the following two courses in order:
MUST $4610 \quad$ Composition for Electronic Instruments 4
MUST 4611 Music Technology Capstone/Senior 4 Recital


| MUSC <br> undergraduat <br> elective | 4 Elective | 4 |
| :--- | :---: | :---: |
| SOCL 4528 | 4 Elective | 4 |
|  | 17 | 17 |

Total Hours: 138

Music and Communication Studies with Concentration in Music Industry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Music Industry Requirements

Code Title Hours
Introduction to College
MUSC $1000 \quad$ Music at Northeastern

Music Theory Requirement
MUSC 1201 Music Theory $1 \quad 4$

Introductory Music Industry
MUSI 1230 Introduction to Music Industry

| Historical Traditions |
| :--- |
| Complete two of the following: |
| MUSC 2311 | Historical Traditions: America 8

Music Industry Electives
Complete two of the following:

| MUSC 2210 | Songwriting 1 |
| :--- | :--- |
| MUSI 2231 | Music Licensing for Media |
| MUSI 2232 | Music Recording 1 |
| MUSI 2233 | Music in the Online and Mobile <br> Environment |
| MUSI 2330 | Performing Arts Administration |
| MUSI 2332 | Music Publishing and Royalties |
| MUSI 2341 | Music Supervision 1 |
| MUSI 2540 | Special Topics in Music Industry |
| MUSI 3332 | Artist Management |
| MUSI 3333 | The Record Industry |
| MUSI 3334 | Music Products Industry |


| MUSI 3335 | Copyright Law for Musicians |
| :--- | :--- |
| MUSC 3337 | Writing about Music |
| MUSI 3338 | Music Industry Marketing and <br> Promotion |
| MUSI 3340 | Concert Promotion and Venue <br> Management |
| MUSI 3401 | Hip Hop in the Music Industry |
| MUSI 4530 | Music Entrepreneurship |
| MUST 1220 | Introduction to Music Technology |
| MUST 3421 | Digital Audio Processing |
| Business Electives |  |
| Complete two courses in the following subject areas: |  |
| ACCT, BUSN, ENTR, FINA, HRMG, INTB, MGMT, ORGB, |  |
| MGSC, MISM, MKTG, SCHM, and STRT |  |

## Communication Studies Requirements

Code Title Hours

Communication Studies Common Requirements
COMM 1101 Introduction to Communication Studies 4
COMM $1112 \quad 4$
or COMM 2301 Communication Research Methods
Foundation Course
Complete one of the following: 4

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1310 | Classical Foundations of <br> Communication |
| COMM 1231 | Principles of Organizational <br> Communication |
| COMM 1225 | Communication Theory |
| COMM 1255 | Communication in a Digital Age |

Cluster Course
Complete one of the following: 4

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

Writing-Intensive Courses
Complete two of the following: 8

| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3500 | Environmental Issues, Communication, <br> and the Media |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3530 | Communication and Sexualities |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| COMM 4131 | Sex and Interpersonal Communication |


| COMM 4533 | Consultation Skills |
| :--- | :--- |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4535 | Nonverbal Social Interaction |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4605 | Youth and Communication Technology |
| COMM 4631 | Crisis Communication and Image <br> Management |
| COMM 4901 | Seminar in Communications <br> COMM 4918 |

Communication Studies Electives
Complete three COMM courses.

## Integrative Requirement

Complete one of the integrative options below. If a communication studies course is taken, an additional music course, numbered 2000 or higher, is required.
Code Title Hours

| Music Option |  |
| :---: | :---: |
| MUSI 4601 Seminar in Music Industry | 4 |
| Communication Studies Option |  |
| Complete two of the following courses. One communication studies course is required: | 8 |
| COMM 4608 Strategic Communication Capstone or COMM 4625 Online Communities |  |
| MUSC 2000 to MUSC 5999 |  |
| MUSI 2000 to MUSI 5999 |  |
| MUST 2000 to MUST 5999 |  |

## Communication Studies Major Grade Requirement

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Program Requirement

128 total semester hours required

## Physics and Music with Concentration in Music Composition and Technology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Physics Major Requirements

## Code Title

Hours

| Physics 1 |  |  |
| :---: | :---: | :---: |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 | 5 |
| Physics 2 |  |  |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 | 5 |
| Intermediate Physics |  |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 2371 and PHYS 2372 | Electronics and Lab for PHYS 2371 | 4 |
| Advanced Physics |  |  |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |

## Music Requirements

Code Title Hours

| Music Theory and Historical Traditions |  |  |
| :--- | :--- | :--- |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSC 1202 | Music Theory 2 | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUST 2315 | History of Electronic Music | 4 |
| MUSC 3560 | Historical Traditions: Music since 1900 | 4 |


| Music Technology |  | 4 |
| :--- | :--- | :--- |
| MUST 1220 | Introduction to Music Technology |  |

MUST 3421 Digital Audio Processing 4
MUST 4520 Interactive Real-Time Performance 4

Music Ensemble
Complete two music ensembles: 2

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |
| Music Technology Capstone/Senior Recital |  |
| MUST 4611 | Music Technology Capstone/Senior |
| Music Electives Requirements | 4 |
| Complete three additional courses in the following ranges: | 12 |

MUSC 2000 to MUSC 4993
MUST 2320 to MUST 4993

| Physics/Music Integrative Requirements |  |  |
| :--- | ---: | ---: |
| Code | Title | Hours |
| Integrative Course Requirements |  |  |
| MUST 1220 | Introduction to Music Technology | 4 |
| MUST 3421 | Digital Audio Processing | 4 |

Physics and Music Combined-Major Credit Requirement
Complete 108 semester hours in the major.

## Program Requirement

128 total semester hours required

## Music, Minor

Complete all courses listed below unless otherwise indicated.
Music Theory and Musicianship
A C or better is required in each course.

| Complete the following course: |  |  |
| :--- | :---: | :---: |
| MUSC 1001 |  |  |
| Music in Everyday Life (Music in <br> Everyday Life) |  |  |
| Complete one of the following courses:  <br> MUSC 1201 Music Theory 1 <br> MUSC 1202 Music Theory 2 <br> MUSC 1119 Fundamentals of Western Music Theory <br> MUSI 1204 Analyzing Popular Genres |  |  | |  |
| :--- |

## Music Literature Electives

$\mathrm{A} C$ or better is required in each course.
Complete two courses from the following list of electives.
Four semesters of lessons or ensembles or a combination
thereof may be substituted for one elective:

## Electives

| MUSC 1103 | Music as a Social Expression |
| :--- | :--- |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1105 | Music of the USA |
| MUSC 1106 | Women in Music |
| MUSC 1108 | Music and Poetry |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1110 | Music in Popular Culture |
| MUSC 1111 | Rock Music |
| MUSC 1112 | Jazz |
| MUSC 1113 | Film Music |
| MUSC 1114 | Mozart |
| MUSC 1115 | Debussy and the Music of Paris |
| MUSC 1116 | Beethoven |
| MUSC 1117 | George Gershwin |
| MUSC 1118 | Music Therapy 1 |
| MUSC 1122 | Music of the Baroque Era |
| MUSC 1123 | Music of the Classical Era |
| MUSC 1124 | Music of the Romantic Era |
| MUSC 1125 | Twentieth-Century Music |
| MUSC 1127 | Introduction to World Music |
| MUSC 1128 | Music of Africa |
| MUSC 1129 | Music of the Middle East |


| MUSC 1131 | Music of Latin America and the <br> Caribbean |
| :--- | :--- |
| MUSC 1132 | Music of the Jewish People |
| MUSC 1135 | Coltrane |
| MUSC 2101 | Black Popular Music |
| MUSC 2130 | Music of Asia |
| MUSC 2311 | Historical Traditions: America |
| MUSC 2312 | Historical Traditions: Classical |
| MUSC 2313 | Historical Traditions: World |
| MUSC 3550 | Historical Traditions: Special Topics |
| MUSC 3560 | Historical Traditions: Music since 1900 |

Ensembles
All ensembles are 1 credit:

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |
| Lessons |  |
| All lessons are 1 credit: |  |
| MUSC 1901 | Music Lessons 1 |
| MUSC 1902 | Music Lessons 2 |
| MUSC 1903 | Composition Lessons |

## GPA Requirement

2.000 GPA required in the minor

## Ethnomusicology, Minor

Complete all courses listed below unless otherwise indicated.
Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| MUSC 1103 | Music as a Social Expression | 4 |
| :---: | :--- | :--- |
| or MUSC 2313 | Historical Traditions: World |  |
| or MUSC 1143 | Music in Culture |  |

## Ethnomusicology Electives

Complete two of the following:

| MUSC 1104 | Survey of African-American Music |
| :--- | :--- |
| AFAM 1104 | The African-American Experience <br> through Music |


| MUSC 1112 | Jazz |
| :--- | :--- |
| MUSC 1128 | Music of Africa |
| AFRS 1128 | The African Experience through Music |
| MUSC 1129 | Music of the Middle East |
| MUSC 1131 | Music of Latin America and the <br> Caribbean |
| MUSC 1132 | Music of the Jewish People |
| MUSC 2101 | Black Popular Music |

## GPA Requirement

2.000 GPA required in the minor

## Music Composition, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| MUSC 1001 | Music in Everyday Life | 4 |
| :--- | :--- | :--- |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSC 1202 | Music Theory 2 | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUSC 1903 | Composition Lessons | 1 |

## Elective

Complete one of the following:
MUSC 1250 Instrumentation and Orchestration MUST 1220 Introduction to Music Technology

## GPA Requirement

2.000 GPA required in the minor

## Music Industry, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Music Theory

MUSC 1119
Fundamentals of Western Music Theory

## Music Appreciation

| Complete one of the following: |  |
| :--- | :--- |
| MUSC 1101 | Introduction to Music |
| MUSC 1103 | Music as a Social Expression |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1105 | Music of the USA |
| MUSC 1106 | Women in Music |
| MUSC 1108 | Music and Poetry |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1110 | Music in Popular Culture |
| MUSC 1111 | Rock Music |
| MUSC 1112 | Jazz |
| MUSC 1113 | Film Music |
| MUSC 1118 | Music Therapy 1 |
| MUSC 1122 | Music of the Baroque Era |


| MUSC 1123 | Music of the Classical Era |
| :--- | :--- |
| MUSC 1124 | Music of the Romantic Era |
| MUSC 1125 | Twentieth-Century Music |
| MUSC 1126 | New Directions in Music |
| MUSC 1127 | Introduction to World Music |
| MUSC 1128 | Music of Africa |
| MUSC 1129 | Music of the Middle East |
| MUSC 1131 | Music of Latin America and the <br> MUSC 1132Music of the Jewish People  <br> MUSC 1136 What's Playing at Symphony? <br> MUSC 1139 Popular Music, Sexuality, and the New <br> MUSC 1140 Global Order <br> MUSC 2130 Music of Asia <br> MUSC 2308 Principles of Music Literature |

## Music Industry

MUSI $1230 \quad$ Introduction to Music Industry
Music Industry Electives
Complete three of the following: 12

| MUSC 2210 | Songwriting 1 |
| :--- | :--- |
| MUSC 3337 | Writing about Music |
| MUSI 2101 | Demo Production for Songwriters |
| MUSI 2231 | Music Licensing for Media |
| MUSI 2232 | Music Recording 1 |
| MUSI 2233 | Music in the Online and Mobile |
| MUSI 2330 | Performing Arts Administration |
| MUSI 2332 | Music Publishing and Royalties |
| MUSI 2341 | Music Supervision 1 |
| MUSI 2540 | Special Topics in Music Industry |
| MUSI 3332 | Artist Management |
| MUSI 3333 | The Record Industry |
| MUSI 3334 | Music Products Industry |
| MUSI 3335 | Copyright Law for Musicians |
| MUSI 3338 | Music Industry Marketing and <br> MUSI 3340Concert Promotion and Venue <br> MUSI 3342Management  <br> MUSI 3401 Mip Hop in the Music Industry <br> MUSI 4530 Music Entrepreneurship <br> MUST 1220 Introduction to Music Technology <br> MUST 3421 Digital Audio Processing |

## GPA Requirement

2.000 GPA required in the minor

## Music Performance, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Acceptance into the minor requires an audition.

## Music Theory and Musicianship

A grade of C or higher is required in music theory courses:

| MUSC 1001 | Music in Everyday Life (Music in <br> Everyday Life) | 4 |
| :--- | :--- | ---: |
| MUSC 1201 | Music Theory 1 |  |$\quad 4$

## Music Electives

| Complete one of the following: |  |
| :--- | :--- |
| MUSC 1103 | Music as a Social Expression |
| MUSC 1104 | Survey of African-American Music |
| MUSC 1105 | Music of the USA |
| MUSC 1106 | Women in Music |
| MUSC 1108 | Music and Poetry |
| MUSC 1109 | Introduction to Art, Drama, and Music |
| MUSC 1110 | Music in Popular Culture |
| MUSC 1111 | Rock Music |
| MUSC 1112 | Jazz |
| MUSC 1113 | Film Music |
| MUSC 1114 | Mozart |
| MUSC 1115 | Debussy and the Music of Paris |
| MUSC 1116 | Beethoven |
| MUSC 1117 | George Gershwin |
| MUSC 1121 | Medieval and Renaissance Music |
| MUSC 1122 | Music of the Baroque Era |
| MUSC 1123 | Music of the Classical Era |
| MUSC 1124 | Music of the Romantic Era |
| MUSC 1125 | Twentieth-Century Music |
| MUSC 1126 | New Directions in Music |
| MUSC 1127 | Introduction to World Music |
| MUSC 1128 | Music of Africa |


| MUSC 1129 | Music of the Middle East |
| :--- | :--- |
| MUSC 2130 | Music of Asia |
| MUSC 1131 | Music of Latin America and the <br> Caribbean |
| MUSC 1132 | Music of the Jewish People |
| MUSC 1135 | Coltrane |
| MUSC 1136 | What's Playing at Symphony? |
| MUSC 1139 | Popular Music, Sexuality, and the New <br> Global Order |
| MUSC 1143 | Music in Culture |
| MUSC 1250 | Instrumentation and Orchestration |
| MUSC 2101 | Black Popular Music |
| MUSC 2137 | Viennese School 1 |
| MUSC 2138 | Viennese School 2 |
| MUSC 2208 | Jazz Improvisation |
| MUSC 2209 | Conducting |
| MUSC 2210 | Songwriting 1 |
| MUSC 3337 | Writing about Music |
| MUSC 3470 | War and Music |
| MUSC 3501 | Modernizing Tradition in Balinese |
| Performing Arts |  |
| MUSC 3540 | Special Topics in Music Analysis |
| MUSC 3541 | Music Analysis Seminar |
| MUSiC Recitals |  |
| MUSC 3410 | Recital 1 |
| MUSC 4622 | Recital 2 |

## GPA Requirement

2.000 GPA required in the minor

## Music Recording, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| MUSI 2232 | Music Recording 1 | 4 |
| :--- | :--- | :--- |
| MUSI 2331 | Music Recording 2 | 4 |
| MUSI 3341 | Music Recording 3-Mixing and | 4 |

## Recording Elective

Complete one of the following:

| MUSI 2233 | Music in the Online and Mobile <br> Environment |
| :--- | :--- |
| MUSI 2341 | Music Supervision 1 |
| MUSI 3335 | Copyright Law for Musicians |
| MUST 1220 | Introduction to Music Technology |
| MUST 2320 | Sound Design |

## GPA Requirement

2.000 GPA required in the minor

## Musical Theatre, Minor

Complete all courses listed below unless otherwise indicated.

## Required Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| THTR 1130 | Introduction to Acting | 4 |
| THTR 4882 | Special Topics: Theatre Performance | 4 |

## Electives

| Code | Title | Hours |
| :--- | :--- | ---: |
| Choose two from the following: | 8 |  |
| THTR 1101 | Introduction to Theatre |  |
| THTR 1150 | Dance History: Modern to Hip Hop |  |
| MUSC 2107 | Introduction to Opera |  |
| MUSC 2210 | Songwriting 1 |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2330 | Playwriting |  |
| THTR 3570 | Musical Theatre Technique |  |


| Making Musical Theatre <br> Code <br> Choose one of the following: | Hours |
| :--- | ---: |
| MUSC 1901 | Music Lessons 1 |
| THTR 1100 | Production Experience 1 |

## GPA Requirement

2.000 GPA required in the minor

## Songwriting, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Music Theory

| MUSC 1119 | Fundamentals of Western Music Theory | 4 |
| :--- | :--- | :---: |
| MUSC 1201 | Music Theory 1 | 4 |
| Songwriting |  | 4 |
| MUSC 2210 | Songwriting 1 | 4 |
| MUSC 2211 | Songwriting 2 | 4 |
| Production |  | 4 |
| MUSI 2101 | Demo Production for Songwriters | 4 |

## GPA Requirement

2.000 GPA required in the minor

## NEC/NU Joint Certificate Program-General Certificate of Merit in Music Performance

Complete all courses listed below unless otherwise indicated.
Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Northeastern University Requirements

Complete 11 credits of course work at Northeastern University as indicated below.

## Music Theory and Musicianship Placement

All students must take a theory placement exam. Students who do not place into MUSC 1201 or MUSI 1203 must first take the following course:
MUSC $1119 \quad$ Fundamentals of Western Music Theory 4
Credits for MUSC 1119 do not count toward the certificate.

Music Theory and Musicianship ${ }^{1}$

| MUSC 1201 | Music Theory 1 | 5 |
| :--- | :--- | :--- |
| and MUSC 1241 | and Musicianship 1 |  |

anc

## Music History

Complete four credits from the following: 4

| MUSC 1104 | Survey of African-American Music |
| :--- | :--- |
| MUSC 1105 | Music of the USA |
| MUSC 1111 | Rock Music |
| MUSC 1112 | Jazz |
| MUSC 1121 | Medieval and Renaissance Music |
| MUSC 1122 | Music of the Baroque Era |
| MUSC 1123 | Music of the Classical Era |
| MUSC 1124 | Music of the Romantic Era |
| MUSC 1125 | Twentieth-Century Music |

Note: Since the following course is repeatable, music majors and combined majors may count the credits for the second time they take this course toward the music performance certificate:

MUSC $3550 \quad$ Historical Traditions: Special Topics

## Ensembles

Complete two music ensembles: 2

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |
| 19sic majors with a concentration in music industry may substitute |  |

## New England Conservatory Requirements

Complete 13 credits of course work at New England Conservatory School of Continuing Education as indicated below.

Complete 8 credits of (repeatable) private studio instruction with New England Conservatory School of Continuing Education faculty. These credits may be accumulated in units of 2,3 , or 4 credits per semester. All private lessons require audition by NEC/NU faculty in order to assign private teacher placement. After being placed with a private teacher, and working with their certificate advisor, students must confirm with that teacher the length and number of lessons they will receive.

| MPNC 1102 | Music Instruction (2 credits) |
| :--- | :--- |
| MPNC 1103 | Music Instruction (3 credits) |
| MPNC 1104 | Music Instruction (4 credits) |
| Music Technology |  |
| MPNC 1201 | Contemporary Music Production and <br> Technology 1 |

## Electives

Complete 3 credits from the following: 3

| MPNC 1301 | Build Your Voice: Art/Skillful Singing |
| :--- | :--- |
| MPNC 1401 | Jazz Ear Training 1 |
| MPNC 1411 | Jazz Theory 1 |
| MPNC 1421 | Finale Chart Writing |
| MPNC 1451 | Jazz History 1 |
| MPNC 1501 | Introduction to Music-in-Education |
| MPNC 1612 | Group Piano Class |
| MPNC 1621 | The Art of Musical Sight-Reading |
| MPNC 1622 | The Art of Practice and Performance |
| MPNC 1623 | Developing Perfect Pitch 1 |
| MPNC 1631 | The Accidental Music Teacher: From |
| MPNC 1642 | Sight-Singing for Singers |
| MPNC 1801 | Introduction to Composition 1 |
| MPNC 1802 | Contemporary Improvisation: Skill <br> Building |
| MPNC 1803 | Contemporary Improvisation: Music of <br> the World-The African Diaspora |

MPNC 1901 Art and Soul of Cinema: An Appreciation of Film Music
MPNC 1911 Latin American Classical Traditions 1
MPNC 2401 Jazz Ear Training 2
MPNC 2411 Jazz Theory 2
MPNC 2431 Jazz Composition and Analysis
MPNC 2451 Jazz History 2
MPNC 2511 Music-in-Education Seminar
MPNC 2512 Models for Teaching and Learning for Music-in-Education
MPNC 2525 Art and Science of Assessing Music Learning
MPNC 2526 Music, Brain Development, and Learning
MPNC 2547 Cross-Cultural Alternatives for Music-inEducation
MPNC 2548 Teaching and Learning with Music Technology
MPNC 2556 Improvisation in Music Education
MPNC 2561 String Pedagogy
MPNC 2571 Performing Artists in Schools

| MPNC 2601 | Music Production for Media |
| :---: | :---: |
| MPNC 2612 | Piano Pedagogy |
| MPNC 2623 | Developing Perfect Pitch 2 |
| MPNC 2624 | Advanced Perfect Pitch |
| MPNC 2644 | Bach/Handel Arias for Singers |
| MPNC 2801 | Introduction to Composition 2 |
| MPNC 2911 | Latin American Classical Traditions 2 |
| MPNC 3401 | Jazz Ear Training 3 |
| MPNC 3411 | Jazz Theory 3 |
| MPNC 3431 | Jazz Arranging |
| MPNC 3611 | Piano Interpretation/Performance Seminar |
| MPNC 3631 | Eighteenth-Century Tonal Counterpoint |
| MPNC 3633 | Modal Counterpoint |
| MPNC 3641 | Dramatic Coaching of Songs and Arias |
| MPNC 3643 | Vocal Repertoire: Coaching and Performance |
| MPNC 3801 | Composition Seminar 1 |
| MPNC 3802 | Composition Seminar 2 |
| MPNC 4401 | Jazz Ear Training 4 |
| MPNC 4411 | Jazz Theory 4 |
| MPNC 4581 | Music-in-Education Guided Internship |
| MPNC 4591 | Music-in-Education Portfolio |
| Ensemble |  |
| Complete one music ensemble: |  |
| MPNC 1712 | Baroque Ensemble |
| MPNC 1713 | NEC Voices: A New Choral Experience |
| MPNC 1714 | Renaissance Ensemble |
| MPNC 1716 | Contemporary Improvisation Ensemble: Walking between Worlds |
| MPNC 1721 | Guitar Ensemble 1 |
| MPNC 1731 | Jazz Ensemble |
| MPNC 1741 | Chamber Music Ensemble |
| MPNC 1742 | Chamber Music Duo |
| MPNC 1751 | Vocal Chamber Music |
| MPNC 1771 | Improvisation and Composition Ensemble |
| MPNC 1781 | Medieval Folk Roots Ensemble |
| MPNC 3642 | Opera Ensemble Skills |

## NEC/NU Joint Certificate Program-Professional Studies Certificate in Music Performance

Complete all courses listed below unless otherwise indicated.
Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Northeastern University Requirements

Complete 22 credits of course work at Northeastern University as indicated below.

## Music Theory and Musicianship Placement

All students must take a theory placement exam. Students who do not place into MUSC 1201 or MUSI 1203 must first take the following course:

MUSC 1119 Fundamentals of Western Music Theory
Credits for MUSC 1119 do not count toward the certificate.

## Music Theory and Musicianship ${ }^{1}$

| MUSC 1201 | Music Theory 1 |  |
| :--- | :--- | :--- |
| and MUSC 1241 | and Musicianship 1 | 5 |
| MUSC 1202 | Music Theory 2 | 5 |
| and MUSC 1242 | and Musicianship 2 |  |
| Music History |  | 4 |

Complete four credits from the following: 4

| MUSC 1104 | Survey of African-American Music |
| :---: | :---: |
| MUSC 1105 | Music of the USA |
| MUSC 1111 | Rock Music |
| MUSC 1112 | Jazz |
| MUSC 1121 | Medieval and Renaissance Music |
| MUSC 1122 | Music of the Baroque Era |
| MUSC 1123 | Music of the Classical Era |
| MUSC 1124 | Music of the Romantic Era |
| MUSC 1125 | Twentieth-Century Music |
| Note: Since the following course is repeatable, music majors and combined majors may count the credits for the second time they take this course toward the music performance certificate: |  |
| MUSC 3550 | Historical Traditions: Special Topics |

Ensembles

| Complete six 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |
| Recital Preparation and Performance |  |
| MUSC 3410 | Recital 1 |
| MUSC 4622 | Recital 2 |

${ }^{1}$ Music majors with a concentration in music industry may substitute Music Theory for Music Industry 1 (MUSI 1203) for Music Theory 1 (MUSC 1201) and Analyzing Popular Genres (MUSI 1204) for Musicianship 1 (MUSC 1241).

## New England Conservatory Requirements

Complete 26 credits of course work at New England Conservatory School of Continuing Education as indicated below.

## Private Studio Instruction

4 Complete 16 credits of (repeatable) private studio instruction with New England Conservatory School of Continuing Education faculty. These credits may be accumulated in units of 2,3 , or 4 credits per semester. All private lessons require audition byNEC/NU faculty in order to assign private teacher placement. After being placed with a private teacher, and working with their certificate advisor, students must confirm with that teacher the length and number of lessons they will receive.

| MPNC 1102 | Music Instruction (2 credits) |
| :---: | :--- |
| MPNC 1103 | Music Instruction (3 credits) |
| MPNC 1104 | Music Instruction (4 credits) |
| Music Technology |  |
| MPNC 1201 | Contemporary Music Production and <br> Technology 1 |

Electives

| Complete seven credits from the following: |
| :--- |
| MPNC 1301 Build Your Voice: Art/Skillful Singing <br> MPNC 1401 Jazz Ear Training 1 <br> MPNC 1411 Jazz Theory 1 <br> MPNC 1421 Finale Chart Writing <br> MPNC 1451 Jazz History 1 <br> MPNC 1501 Introduction to Music-in-Education <br> MPNC 1612 Group Piano Class <br> MPNC 1621 The Art of Musical Sight-Reading <br> MPNC 1622 The Art of Practice and Performance <br> MPNC 1623 Developing Perfect Pitch 1 <br> MPNC 1631 The Accidental Music Teacher: From |


| MPNC 1642 | Sight-Singing for Singers |
| :--- | :--- |
| MPNC 1801 | Introduction to Composition 1 |

MPNC 1802 Contemporary Improvisation: Skill Building

| MPNC 1803 | Contemporary Improvisation: Music of <br> the World-The African Diaspora |
| :--- | :--- |

MPNC 1901 Art and Soul of Cinema: An Appreciation of Film Music
MPNC 1911 Latin American Classical Traditions 1
MPNC 2401 Jazz Ear Training 2
MPNC 2411 Jazz Theory 2
MPNC 2431 Jazz Composition and Analysis
MPNC 2451 Jazz History 2
MPNC 2511 Music-in-Education Seminar
MPNC 2512 Models for Teaching and Learning for Music-in-Education
MPNC $2525 \quad$ Art and Science of Assessing Music Learning

| MPNC 2526 | Music, Brain Development, and <br> Learning |
| :--- | :--- |
| MPNC 2547 | Cross-Cultural Alternatives for Music-in- <br> Education |
| MPNC 2548 | Teaching and Learning with Music <br> Technology |
| MPNC 2556 | Improvisation in Music Education |
| MPNC 2561 | String Pedagogy |
| MPNC 2571 | Performing Artists in Schools |


| MPNC 2601 | Music Production for Media |  |
| :---: | :---: | :---: |
| MPNC 2612 | Piano Pedagogy |  |
| MPNC 2623 | Developing Perfect Pitch 2 |  |
| MPNC 2624 | Advanced Perfect Pitch |  |
| MPNC 2644 | Bach/Handel Arias for Singers |  |
| MPNC 2801 | Introduction to Composition 2 |  |
| MPNC 2911 | Latin American Classical Traditions 2 |  |
| MPNC 3401 | Jazz Ear Training 3 |  |
| MPNC 3411 | Jazz Theory 3 |  |
| MPNC 3431 | Jazz Arranging |  |
| MPNC 3611 | Piano Interpretation/Performance Seminar |  |
| MPNC 3631 | Eighteenth-Century Tonal Counterpoint |  |
| MPNC 3633 | Modal Counterpoint |  |
| MPNC 3641 | Dramatic Coaching of Songs and Arias |  |
| MPNC 3643 | Vocal Repertoire: Coaching and Performance |  |
| MPNC 3801 | Composition Seminar 1 |  |
| MPNC 3802 | Composition Seminar 2 |  |
| MPNC 4401 | Jazz Ear Training 4 |  |
| MPNC 4411 | Jazz Theory 4 |  |
| MPNC 4581 | Music-in-Education Guided Internship |  |
| MPNC 4591 | Music-in-Education Portfolio |  |
| Ensembles |  |  |
| Complete two music ensembles: |  | 2 |
| MPNC 1712 | Baroque Ensemble |  |
| MPNC 1713 | NEC Voices: A New Choral Experience |  |
| MPNC 1714 | Renaissance Ensemble |  |
| MPNC 1716 | Contemporary Improvisation Ensemble: Walking between Worlds |  |
| MPNC 1721 | Guitar Ensemble 1 |  |
| MPNC 1731 | Jazz Ensemble |  |
| MPNC 1741 | Chamber Music Ensemble |  |
| MPNC 1742 | Chamber Music Duo |  |
| MPNC 1751 | Vocal Chamber Music |  |
| MPNC 1771 | Improvisation and Composition Ensemble |  |
| MPNC 1781 | Medieval Folk Roots Ensemble |  |
| MPNC 3642 | Opera Ensemble Skills |  |

## Theatre

Website (http://www.northeastern.edu/camd/theatre)

## Scott Edmiston, MFA

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The Northeastern Department of Theatre is a community dedicated to creativity, collaboration, and excellence in the pursuit of innovative ways to see, to investigate, and to make theatre for a new generation. We offer students a transformative education by aligning performance and
production with academic inquiry and professional experiential learning. Our curriculum embraces diverse techniques, philosophies, and measures of success.

Connecting classroom experiences to the stage, we produce a diverse season of plays and musicals, ranging from classical theatre to world premieres. Nearly fifty performances take place annually in the Studio Theatre, where students collaborate with faculty and professional guest artists to achieve the highest standard of professionalism. With more than thirty co-op partners around the globe, students can unite the career elements of a conservatory program with the comprehensive education of a liberal arts degree.

Our multidimensional students develop a unique understanding of creative entrepreneurship. They are actors, directors, designers, technicians, playwrights, stage managers, producers, and adminstrators. With generosity, integrity, respect, and rigor, we explore theatre as a living art that engages with our global society and the moment in which we live.

## Academic Progression Standards

Students must receive a minimum grade of 2.000 in major courses. The following courses are recommended to be taken by the end of the fourth semester (third semester for transfer students):

| THTR 1101 | Introduction to Theatre | 4 |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |
| THTR 1270 | Introduction to Theatrical Design | 4 |
| THTR 2325 | From Script to Stage | 4 |

## Preapproved Template Program in Theatre

The Department of Theatre offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/ registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Arts (BA)

- Theatre (p. 158)
- Media and Screen Studies and Theatre (p. 160)


## Bachelor of Science (BS)

- Theatre (p. 161)
- Media and Screen Studies and Theatre (p. 164)
- American Sign Language and Theatre (p. 165)


## Minors

- Theatre (p. 166)
- Musical Theatre (p. 167)
- Professional Presentation (p. 167)


## Theatre, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (EI), Interpreting Culture (IC), Societies and Institutions (SI) and Formal and Quantitative Reasoning (FQ) can be met through courses within the major. All other NUpath requirements must be met through electives.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Theatre Major Requirements

A minimum grade of $C$ is required for all theatre courses.

## Foundational Stages

| THTR 1000 | Theatre at Northeastern | 1 |
| :--- | :--- | :--- |
| THTR 1101 | Introduction to Theatre | 4 |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |
| THTR 1270 | Introduction to Theatrical Design | 4 |
| THTR 2325 | From Script to Stage | 4 |
| THTR 4100 | (Senior Theatre Career Seminar) | 1 |

Theatre Texts and Context
Complete two of the following:

| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :--- | :--- |
| THTR 2315 | Rebels of Modern Drama |

## Advanced Technique

Complete one of the following:
Students concentrating in Theatre performance should complete THTR 3450 or THTR 3550.
Students concentrating in Theatre Design \& Production should complete THTR 3550 or THTR 3600.

| THTR 3450 | Acting 3-Playing Shakespeare <br> (Theatre Performance Concentration) |
| :--- | :--- |
| THTR 3550 | Directing for the Stage |
| THTR 3600 |  |

## Electives

Complete the following electives or choose one of the concentrations below (p. 158).

Complete four of the following: 16

| THTR 1150 | Dance History: Modern to Hip Hop |
| :--- | :--- |
| THTR 1215 | Activism and Performance |
| THTR 1220 | African-American Theatre |
| THTR 1260 | Movement for the Actor |
| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2365 | Technical Theatre 2 |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2400 | Scenic Design |
| THTR 2600 | Voice and Speech for the Actor |
| THTR 3300 |  |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Theatre Major Credit Requirement

Complete 60 semester hours in the major. The Performance and Production Concentrations require 68 semester hours.

## Program Requirement

128 total semester hours required

## Theatre Performance Concentration

A minimum grade of C is required for all theatre courses in the Performance Concentration.

## Performance

| THTR 1260 | Movement for the Actor | 4 |
| :--- | :--- | :--- |
| THTR 2342 | Acting 2 | 4 |
| THTR 2600 | Voice and Speech for the Actor | 4 |

Electives
Complete three of the following:
THTR 1150 Dance History: Modern to Hip Hop
THTR 1215 Activism and Performance
THTR 2300 Theatre History: Greek Tragedy to
Romanticism

| THTR 2310 | History of Musical Theatre |
| :--- | :--- |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2385 | Fashion Construction and Pattern |
| THTR 2400 | Scenic Design |
| THTR 3300 |  |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Theatre Production Concentration

A minimum grade of $C$ is required for all theatre courses in the Production Concentration.

## Design \& Production

| Complete four of the following: | 16 |
| :--- | :--- |
| THTR 1230 | The Evolution of Fashion and Costume |
| THTR 2365 | Technical Theatre 2 |


| THTR 1150 | Dance History: Modern to Hip Hop |
| :---: | :---: |
| THTR 1215 | Activism and Performance |
| THTR 1235 | Fashion and Costume Design in Film and Television |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2385 | Fashion Construction and Pattern Making |
| THTR 2400 | Scenic Design |
| THTR 3300 |  |
| THTR 3550 | Directing for the Stage |

THTR $3570 \quad$ Musical Theatre Technique

## Plan of Study

Theatre, BA
SAMPLE FOUR YEARS, ONE CO-OP IN SPRING/SUMMER

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1000 | 1 THTR 1131 | 4 Elective | 4 Vacation | 0 |
| THTR 1101 | 4 Theatre <br> Texts and <br> Context \#1 | 4 Elective | 4 |  |
| THTR 1120 | 4 Theatre <br> elective \#1 | 4 |  |  |
| ENGW 1111 | 4 MATH 1215 | 4 |  | 0 |
| Elective | 4 | 16 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1100 | 1 Co-op \#1 | Co-op \#1 | 0 Vacation | 0 |
| THTR 2325 | 4 |  |  |  |
| THTR 1270 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 17 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 2000 | 1 <br> Theatre <br> elective \#3 | 4 Elective | 4 Vacation | 0 |
| Theatre <br> texts and <br> context \#2 | 4 THTR 3700 | 4 Elective | 4 |  |
| Theatre <br> elective \#2 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
| Elective | 4 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| THTR 4100 | Theatre <br> Advanced <br> Technique | 4 |
| Theatre | 4 THTR 4702 | 4 |
| Elective \#4 | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 | 16 |
| Elective | 17 |  |

Total Hours: 132

## Theatre, BA

## SAMPLE FIVE YEARS, TWO CO-OPS IN SPRING/SUMMER

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1000 | 1 THTR 1131 | 4 Vacation | 0 Vacation | 0 |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 2000 | 1 Co-op \#2 | Co-op \#2 | Vacation | 0 |
| Theatre <br> texts and <br> context \#2 | 4 |  |  |  |
| Theatre <br> elective \#2 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |

$\left.\begin{array}{lcccr}\text { Year } 4 & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Theatre } & 4 \text { Theatre } & 4 & \text { Vacation } & \text { Vacation }\end{array}\right] 0$

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| THTR 4100 | 1 THTR 4702 | 4 |
| Theatre | 4 Elective | 4 |
| Advanced |  |  |
| Technique |  | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 | 16 |
|  | 17 |  |

Total Hours: 133

## Media and Screen Studies and Theatre, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

| Code Title | Hours |  |
| :--- | :--- | ---: |
| Introduction to College | 1 |  |
| MSCR 1000 | Media and Screen Studies at <br> Northeastern | 4 |
| Introduction to Media Studies | 4 |  |
| MSCR 1220 | Media, Culture, and Society |  |
| Introduction to Screen Studies | 4 |  |
| MSCR 2220 | Understanding Media and Film | 4 |

Advanced Theory
MSCR $4623 \quad$ Theories of Media and Culture 4
Media and Screen Studies Electives
Complete four of the following:

| CINE 2160 | Narrative Filmmaking |
| :--- | :--- |
| CINE 2350 | History of Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 3446 | Topics in Documentary Production |
| CINE 3920 | Topics in Film Studies |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2305 | Digital Media Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 3210 | Special Topics in Media and Screen |
| MSCR 3300 | Studies |
| MSCR 3402 | Television Activism |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| MSCR 2895 | Film Analysis |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |


| ARTH 2212 | Survey of the Still and Moving Image |
| :--- | :--- |
| Advanced Media and Screen Electives |  |
| Complete two of the following: |  |
| CINE 3500 | Film Theory |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen |
| MSCR 4685 | Studies |
| MSCR 4970 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |


| Theatre Requirements <br> Code |  | Title |
| :--- | :--- | ---: | Hours

## Theatre Texts and Context

| Choose one of the following: | 4 |
| :--- | :--- | :--- |
| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| THTR 2315 | Rebels of Modern Drama |

Intermediate or Advanced Technique
Choose two of the following:

| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :--- | :--- |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2320 | America Onstage: Dramatizing the <br>  <br> Dream |
| THTR 2330 | Playwriting |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |


| THTR 2346 | Viewpoints |
| :--- | :--- |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2400 | Scenic Design |
| THTR 2600 | Voice and Speech for the Actor |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Media and Screen Studies Capstone |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Theatre Capstone |  |  |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Theatre, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Creative Expression/Innovation (El), Interpreting Culture (IC), Societies and Institutions (SI) and Formal and Quantitative Reasoning (FQ) can be met through courses within the major. All other NUpath requirements must be met through electives.

## Theatre Major Requirements

A minimum grade of C is required for all theatre courses.

## Foundational Stages

| THTR 1000 | Theatre at Northeastern | 1 |
| :--- | :--- | :--- |
| THTR 1101 | Introduction to Theatre | 4 |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |
| THTR 1270 | Introduction to Theatrical Design | 4 |
| THTR 2325 | From Script to Stage | 4 |
| THTR 4100 | (Senior Theatre Career Seminar) | 1 |

Theatre Texts and Context

| Complete two of the following: |  | 8 |
| :---: | :---: | :---: |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2340 | Theatre and Society |  |
| Making Theatre |  |  |
| THTR 1100 | Production Experience 1 | 1 |
| THTR 2000 | Production Experience 2 | 1 |
| THTR 3700 | Rehearsal and Production: The Art of Collaboration | 4 |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

Advanced Technique
Complete one of the following:
Students concentrating in Theatre performance should complete THTR 3450 or THTR 3550.
Students concentrating in Theatre Design \& Production should complete THTR 3550 or THTR 3600.

| THTR 3450 | Acting 3-Playing Shakespeare <br> (Theatre Performance Concentration) |
| :--- | :--- |
| THTR 3550 | Directing for the Stage |
| THTR 3600 |  |

## Electives

Complete the following electives or choose one of the concentrations below (p. 162).

| Complete four of the following: |  |
| :--- | :--- |
| THTR 1150 | Dance History: Modern to Hip Hop |
| THTR 1215 | Activism and Performance |
| THTR 1220 | African-American Theatre |
| THTR 1260 | Movement for the Actor |
| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2365 | Technical Theatre 2 |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2400 | Scenic Design |
| THTR 2600 | Voice and Speech for the Actor |
| THTR 3300 |  |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Theatre Major Credit Requirement

8 Complete 60 semester hours in the major. The Performance and Production Concentrations require 68 semester hours.

## Program Requirement

128 total semester hours required

## Theatre Performance Concentration

A minimum grade of $C$ is required for all theatre courses in the Performance Concentration.

Performance

| THTR 1260 | Movement for the Actor | 4 |
| :--- | :--- | :--- |
| THTR 2342 | Acting 2 | 4 |
| THTR 2600 | Voice and Speech for the Actor | 4 |

Electives
Complete three of the following: 12

| THTR 1150 | Dance History: Modern to Hip Hop |
| :--- | :--- |
| THTR 1215 | Activism and Performance |
| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2385 | Fashion Construction and Pattern |
| THTR 2400 | Scenic Design |
| THTR 3300 |  |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Theatre Production Concentration

A minimum grade of $C$ is required for all theatre courses in the Production Concentration.

## Design \& Production

Complete four of the following: 16

| THTR 1230 | The Evolution of Fashion and Costume |
| :--- | :--- |
| THTR 2365 | Technical Theatre 2 |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2385 | Fashion Construction and Pattern <br> Making |
| THTR 2400 Scenic Design <br> Electives  <br> Complete two of the following:  |  |

THTR 1150 Dance History: Modern to Hip Hop

THTR 1215 Activism and Performance

| THTR 1235 | Fashion and Costume Design in Film and Television |
| :---: | :---: |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2385 | Fashion Construction and Pattern Making |
| THTR 2400 | Scenic Design |
| THTR 3300 |  |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Plan of Study

Theatre, BS
SAMPLE FOUR YEARS, ONE CO-OP IN SPRING/SUMMER
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1000 | 1 THTR 1131 | 4 Elective | 4 Vacation | 0 |
| THTR 1101 | 4 Theatre <br> Texts and <br> Context \#1 | 4 Elective | 4 |  |
| THTR 1120 | 4 Theatre <br> elective \#1 | 4 |  |  |
| ENGW 1111 | 4 MATH 1215 | 4 |  | 0 |
| Elective | 4 | 16 | 8 |  |
|  | 17 |  |  |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| THTR 1100 | 1 Co-op \#1 | Co-op \#1 | 0 Vacation | 0 |
| THTR 2325 | 4 |  |  |  |
| THTR 1270 | 4 |  |  |  |
| Elective | 4 |  | 0 | 0 |
| Elective | 4 | 0 |  |  |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 2000 | Theatre <br> elective \#3 | 4 Elective | 4 Vacation | 0 |
| Theatre <br> texts and <br> context \#2 | 4 THTR 3700 | 4 Elective | 4 |  |
| Theatre <br> elective \#2 | 4 Elective | 4 |  |  |
| Upper- <br> Division <br> Elective | 4 Elective | 4 |  |  |


| Elective | 4 |  |  |  |
| :--- | ---: | ---: | :--- | :--- |
|  | 17 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| THTR 4100 | Theatre <br> Advanced <br> Technique | 4 |
| Theatre <br> Elective \#4 | 4 THTR 4702 |  |

Total Hours: 132

## Theatre, BS

SAMPLE FIVE YEARS, TWO CO-OPS IN SPRING/SUMMER
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1000 | 1 THTR 1131 | 4 Vacation | 0 Vacation | 0 |
| THTR 1101 | 4 Theatre <br> texts and <br> context \#1 | 4 |  |  |
| THTR 1120 | 4 Theatre <br> elective \#1 | 4 |  |  |
| ENGW 1111 | 4 MATH 1215 | 4 | 0 | 0 |
| Elective | 4 | 16 | 0 |  |
|  | 17 |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 1100 | 1 Co-op \#1 | Co-op \#1 | 0 Vacation | 0 |
| THTR 1270 | 4 |  |  |  |
| THTR 2325 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EEAM 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| THTR 2000 | 1 Co-op \#2 | Co-op \#2 | Vacation | 0 |
| Theatre <br> texts and <br> context \#2 | 4 |  |  |  |
| Theatre <br> elective \#2 | 4 |  |  |  |
| Upper- <br> Division | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |
| Elective | 17 |  |  |  |

$\left.\begin{array}{lcccr}\text { Year 4 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Theatre } & 4 \text { Theatre } \\ \text { elective \#3 }\end{array} \quad \begin{array}{c}\text { Elective \#4 }\end{array}\right)$

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| THTR 4100 | 1 THTR 4702 | 4 |
| Theatre <br> Advanced | 4 Elective | 4 |
| Technique | 4 Elective | 4 |
| Upper- <br> Division | 4 Elective | 4 |
| Elective | 4 | 16 |
| Elective | 17 |  |
| Elective |  |  |

Total Hours: 133

## Media and Screen Studies and Theatre, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Media and Screen Studies Requirements

Code Title Hours

| Introduction to College |  |  |
| :--- | :--- | :--- |
| MSCR 1000 | Media and Screen Studies at | 1 |
|  | Northeastern |  |


| Introduction to Media Studies |  |  |
| :--- | :--- | ---: |
| MSCR 1220 | Media, Culture, and Society | 4 |
| Introduction to Screen Studies |  |  |
| MSCR 2220 | Understanding Media and Film | 4 |
| Advanced Theory |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |


| Media and Screen Studies Electives |  |
| :--- | :--- |
| Complete four of the following: | 16 |


| CINE 2160 | Narrative Filmmaking |
| :--- | :--- |
| CINE 2350 | History of Film |
| CINE 2394 | Modern Film and Global Culture |


| CINE 3389 | Screenwriting |
| :--- | :--- |
| CINE 3392 | Gender and Film |
| CINE 3446 | Topics in Documentary Production |
| CINE 3920 | Topics in Film Studies |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2305 | Digital Media Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen |
| MSCR 3300 | Studies |
| MSCR 3402 | Television and Society |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |
| Ad |  |

## Advanced Media and Screen Electives

Complete two of the following: 8

| CINE 3500 | Film Theory |
| :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br>  <br> Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| ARTD 4582 | Video in Context: Video and Social |
| ARTD 4682 | Change |

## Theatre Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Foundational Stages |  | 4 |
| THTR 1101 | Introduction to Theatre | 4 |
| THTR 1120 | Acting 1 |  |


| THTR 1131 | Technical Theatre 1 | 4 |
| :---: | :---: | :---: |
| THTR 1270 | Introduction to Theatrical Design | 4 |
| THTR 2325 | From Script to Stage | 4 |
| Theatre Texts and Context |  |  |
| Choose one of the following: |  | 4 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2340 | Theatre and Society |  |
| Making Theatre |  |  |
| THTR 1100 | Production Experience 1 | 1 |
| THTR 2000 | Production Experience 2 | 1 |
| Intermedate or Advanced Technique |  |  |
| Choose two of | lowing: | 8 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2330 | Playwriting |  |
| THTR 2340 | Theatre and Society |  |
| THTR 2342 | Acting 2 |  |
| THTR 2345 | Acting for Cameras |  |
| THTR 2346 | Viewpoints |  |
| THTR 2360 | Stage Makeup |  |
| THTR 2370 | Lighting Design for the Stage |  |
| THTR 2380 | Costume Design |  |
| THTR 2400 | Scenic Design |  |
| THTR 2600 | Voice and Speech for the Actor |  |
| THTR 3450 | Acting 3-Playing Shakespeare |  |
| THTR 3550 | Directing for the Stage |  |
| THTR 3570 | Musical Theatre Technique |  |

## Integrative Requirement

## Code Title

## Hours

| Media and Screen Studies Capstone |  |  |
| :--- | :--- | ---: |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Theatre Capstone |  | 4 |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## American Sign Language and Theatre, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Theatre Combined-Major

 RequirementsCode Title Hours

American Sign Language

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

Social and Cultural World

| DEAF 1500 | Deaf People in Society | 4 |
| :--- | :--- | :---: |
| DEAF 2500 | Deaf History and Culture | 4 |
| Linguistics | Introduction to Language and | 4 |
| LING 1150 | Linguistics | 4 |

Performance Interpreting

| INTP 3550 | Performance Interpreting-Interpreting for the Theatre | 4 |
| :---: | :---: | :---: |
| Interpreting |  |  |
| INTP 3500 | The Interpreting Profession | 2 |
| Theatre |  |  |
| A grade of C or higher is required for all theatre courses. |  |  |
| Foundational Stages |  |  |
| THTR 1101 | Introduction to Theatre | 4 |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |
| THTR 1270 | Introduction to Theatrical Design | 4 |
| THTR 2325 | From Script to Stage | 4 |

Theatre Texts and Context
Choose one of the following: 4

| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :---: | :--- |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2320 | America Onstage: Dramatizing the <br> Dream |
| THTR 2340 | Theatre and Society |
| Making Theatre | Production Experience 1 |
| THTR 1100 |  |


| THTR 2000 | Production Experience 2 | 1 |
| :---: | :---: | :---: |
| Intermediate or Advanced Technique |  |  |
| Choose two of the following: |  | 8 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2330 | Playwriting |  |
| THTR 2340 | Theatre and Society |  |
| THTR 2342 | Acting 2 |  |
| THTR 2345 | Acting for Cameras |  |
| THTR 2346 | Viewpoints |  |
| THTR 2360 | Stage Makeup |  |
| THTR 2365 | Technical Theatre 2 |  |
| THTR 2370 | Lighting Design for the Stage |  |
| THTR 2380 | Costume Design |  |
| THTR 2400 | Scenic Design |  |
| THTR 2600 | Voice and Speech for the Actor |  |
| THTR 3450 | Acting 3-Playing Shakespeare |  |
| THTR 3550 | Directing for the Stage |  |
| THTR 3570 | Musical Theatre Technique |  |
| Integrative Course Work |  |  |
| INTP 4940 | Interpreting Research Practicum | 4 |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Combined-Major GPA Requirement

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

## Combined-Major Credit/Grade Requirement

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

## Program Requirement

128 total semester hours required

## Plan of Study

Sample Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 1101 | 4 AMSL 1102 | 4 Vacation | 0 Vacation | 0 |
| DEAF 1500 | 4 THTR 1120 | 4 |  |  |
| THTR 1101 | 4 MATH 1215 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 DEAF 2700 | 4 |  |  |
| DEAF 2500 | 4 THTR 1131 | 4 |  |  |
| THTR 1270 | 4 Elective | 4 |  |  |
| THTR 1100 | 1 | 16 | 0 | 0 |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTP 3500 | 2 INTP 3550 | 4 Vacation | 0 Vacation | 0 |
| AMSL 3101 | 4 Theatre <br> texts and <br> context | 4 |  |  |
| THTR 2325 | 4 Elective | 4 |  |  |
| Theatre <br> intermediate <br> or advanced <br> technique | 4 Elective | 4 |  | 0 |
| THTR 2000 | 1 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ENGW 3315 | 4 INTP 4940 | 4 |
| THTR 4702 | 4 Theatre <br> intermediate <br> or advanced <br> technique | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Theatre, Minor

Complete all courses listed below unless otherwise indicated.
Note: No student may receive a theatre minor as a result of external transfer credit only.

## Required Course

THTR 1101 Introduction to Theatre 4

## Foundational Courses

Complete one of the following: 4

| THTR 1130 | Introduction to Acting |
| :--- | :--- |
| THTR 1131 | Technical Theatre 1 |
| THTR 1270 | Introduction to Theatrical Design |
| THTR 2325 | From Script to Stage |

## Electives

Choose two courses from the following options: (Pre- 8 requisites may apply).

| THTR 1125 | Improvisation for Entrepreneurs |
| :--- | :--- |
| THTR 1127 | Improvisation for Entrepreneurs- <br> Abroad |
| THTR 1130 | Introduction to Acting |
| THTR 1131 | Technical Theatre 1 |
| THTR 1135 | Introduction to Acting Abroad |
| THTR 1150 | Dance History: Modern to Hip Hop |
| THTR 1160 | The Professional Voice |
| THTR 1165 | The Professional Voice Abroad |
| THTR 1215 | Activism and Performance |
| THTR 1220 | African-American Theatre |
| THTR 1270 | Introduction to Theatrical Design |


| THTR 2300 | Theatre History: Greek Tragedy to <br> Romanticism |
| :--- | :--- |
| THTR 2310 | History of Musical Theatre |
| THTR 2315 | Rebels of Modern Drama |
| THTR 2320 | America Onstage: Dramatizing the <br> Dream |
| THTR 2325 | From Script to Stage |
| THTR 2330 | Playwriting |
| THTR 2335 | Boston Theatre Experience |
| THTR 2340 | Theatre and Society |
| THTR 2342 | Acting 2 |
| THTR 2345 | Acting for Cameras |
| THTR 2346 | Viewpoints |
| THTR 2360 | Stage Makeup |
| THTR 2365 | Technical Theatre 2 |
| THTR 2370 | Lighting Design for the Stage |
| THTR 2380 | Costume Design |
| THTR 2400 | Scenic Design |
| THTR 2600 | Voice and Speech for the Actor |
| THTR 3450 | Acting 3-Playing Shakespeare |
| THTR 3550 | Directing for the Stage |
| THTR 3570 | Musical Theatre Technique |

## Making Theatre

Participate in a theatre department production.
THTR 1100 Production Experience 1 1

NOTE: If cast in a substantial role, THTR 3000 Rehearsal and Production (4 SH) can be substituted for THTR 1100

## GPA Requirement

2.000 GPA required in the minor

## Musical Theatre, Minor

Complete all courses listed below unless otherwise indicated.

## Required Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| THTR 1130 | Introduction to Acting | 4 |
| THTR 4882 | Special Topics: Theatre Performance | 4 |
| Electives |  |  |
| Code | Title | Hours |
| Choose two from the following: | 8 |  |
| THTR 1101 | Introduction to Theatre |  |
| THTR 1150 | Dance History: Modern to Hip Hop |  |
| MUSC 2107 | Introduction to Opera |  |
| MUSC 2210 | Songwriting 1 |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2330 | Playwriting |  |
| THTR 3570 | Musical Theatre Technique |  |

## Making Musical Theatre

Code Title
Hours
Choose one of the following:

THTR $1100 \quad$ Production Experience 1

## GPA Requirement

2.000 GPA required in the minor

## Professional Presentation, Minor

The professional presentation minor is an interdisciplinary minor. Please see the Communication Studies (p. 108) page for requirements.

## D'Amore-McKim School of Business

Website (http://www.damore-mckim.neu.edu)
Hugh G. Courtney, PhD, Dean
Peggy L. Fletcher, MBA, Associate Dean of Undergraduate Programs and Associate Dean of Finance and Administration
Kate E. Klepper, MBA, Associate Dean of Graduate Programs
Mario J. Maletta, PhD, Senior Associate Dean of Academic Programs
Barbara Scott, MBA, Associate Dean of Marketing, Communications, and Corporate Relations
Emery A. Trahan, PhD, Senior Associate Dean of Faculty and Research
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250 Dodge Hall
617.373.3270
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Cynthia Elcock, Academic Assistant, c.elcock@northeastern.edu
Modern business faces many opportunities and challenges due to increasing globalization of economies; political change; and the effects of foreign policy, technological advances, regulatory policies, and economic policies. The result is increased demand for highly educated individuals equipped to analyze and address this changing environment.

Programs in the D'Amore-McKim School of Business are designed for students who are preparing to take on managerial responsibility or starting their own companies. These programs seek to 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 school strives to assist students in becoming global citizens, designing innovative solutions, and developing their own professional paths and passions.

The school offers Bachelor of Science degrees in:

- Business Administration
- International Business

For each degree program students must choose one of the concentrations listed below:

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Information Management
- Marketing
- Supply Chain Management

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 where business 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.

The undergraduate program of the D'Amore-McKim School of Business 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, as well as in nonprofits and government.

## ADDITIONAL INFORMATION FOR INTERNATIONAL BUSINESS

Globalization of the world economy, international trade, and the growth of multinational firms have created an increasing demand for managers who are equipped to address the complexities of international business. The D'Amore-McKim School of Business offers the Bachelor of Science in International Business (BSIB) to meet the needs of highly motivated students who are interested in careers in international business whether abroad or in the United States.

The primary purpose of the BSIB is to give students the opportunity to experience the challenges of an expatriate assignment that any manager may encounter during his or her career. The program requires that students complete an expatriate year of overseas study and work. To offer the BSIB program, the D'Amore-McKim School of Business partners with a group of business schools around the world that have a similar philosophy of preparing globally minded managers and encourages classroom study and work placements.

To earn the BSIB, students must complete both the academic and work components of the program. Coursework may be completed in either four or five years. The work component (co-op) consists of a minimum of two and potentially up to three placements. Students must complete a six month co-op in the host country where they studied. The overseas co-op takes place either immediately after or in conjunction with the students' overseas study semester, which is determined by the host country.

Many of our partners in Europe and Central/South America offer the opportunity for a dual degree. The dual degree program allows students to spend two years at the partner school and earn a bachelor's degree from Northeastern and the equivalent degree from the partner institution.

The D'Amore-McKim School of Business has designed a PlusOne program which combines the BSIB degree with a Master of Science in International Management (MSIM). This option allows eligible students to overlap their last semester of their senior year with the first semester of a one year Masters program and gives the opportunity to earn the Undergraduate and Masters degrees in the timeframe of five years of study.

Students, in conjunction with their Academic Advisor, will determine an individual action plan to meet their needs. Students take the degree's required courses in international business administration and choose a concentration from other business areas such as accounting, entrepreneurship, finance, marketing, management, information management, and supply chain management. In addition to this required functional concentration, students can choose to complete one or more additional concentrations.

BSIB students can choose from two expatriate year destination options. The first requires proficiency in a foreign language; the second requires the completion of a globally focused general minor. Both options require
immersion in the local culture to sharpen their language proficiency, cross-cultural capabilities, and business skills.

1. Students who opt for an expatriate year destination in Brazil, China, France, Germany, Italy, Japan, Mexico or Spain must achieve proficiency in the host country language. Proficiency is determined by standardized examination.

Students who opt for an expatriate year in China and Japan take their coursework in English. However, the program requires a strong language preparation that is essential to function in daily life and to broaden the students' options for securing a cooperative education work assignment.
2. Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. The following is a list of qualifying minors.

General Minor Options:

- African Studies
- Cultural Anthropology
- East Asian Studies
- Latino/a, Latin American and Caribbean Studies
- Global Social Entrepreneurship
- Emerging Markets
- International Affairs
- International Security Studies
- Jewish Studies
- Middle East Studies

Language Minor Options:

- Arabic
- Chinese
- French
- Italian
- Japanese
- Portuguese
- Russian
- Spanish


## Academic Progression Standards

In addition to meeting the university progression standards, students must achieve a 2.000 GPA in business courses.

Freshmen must complete at least 32 semester hours (SH) in order to progress to sophomore status. 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 coop) full semester and 8 SH each in-school summer half semester in order to progress to the next class standing.

Students who do not meet academic progression standards will be placed on academic probation and may be subject to dismissal from the university.

## Pass/Fail Option

D'Amore-McKim School of Business 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 D'Amore-McKim School of Business policy that, with permission of their academic advisor, co-op coordinator, and employer, students may take a maximum of one class while on co-op during the fall, spring, or summer term.

## External Transfer to the D'Amore-McKim School of Business

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 D'Amore-McKim School of Business 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 SH of credit. A combination of 60 SH of nonbusiness courses and/or 28 SH of business courses will be accepted; 64 SH may be applied as credits toward the degree.

## 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. Check with the Office of Undergraduate Admissions for more details.

## Graduation Requirements

The school reserves the right to amend programs, courses, and degree requirements to fulfill its educational responsibility to respond to relevant changes in the field.

Bachelor of Science degree candidates must complete all prescribed work of the curriculum in which they seek to qualify, currently 128 SH . The degree not only represents the formal completion of selected courses but also indicates professional study in the major or concentration. A GPA of 2.000 and a C average in all business courses are required for graduation.

## Accounting

Website (http://www.damore-mckim.neu.edu)
404 Hayden Hall
617.373.3240
617.373.8814 (fax)

Ganesh Krishnamoorthy, Professor and Group Coordinator, g.krishnamoorthy@northeastern.edu

A concentration in accounting aims to prepare the graduate for entry into public accounting or private industry in a highly valued career. Accounting is a dynamic profession that requires people to possess 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, managerial accounting, and intermediate 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. Students wishing to sit for the CPA exam may combine the BSBA with a concentration in accounting with the Master of Science in Accounting (five-year BSBA/ MSA program).

## Programs

## Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Accounting (p. 170)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Accounting (p. 173)


## Bachelor of Science in Business Administration with Concentration in Accounting, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

Business Core Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Mathematics |  |  |
| Complete one of the following: |  | 4 |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics |  |  |
| MGSC 2301 | Business Statistics | 4 |
| Macroeconomics and Microeconomics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |

ECON 1116

| Business Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  |  |
| FINA 2201 | Financial Management | 4 |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Management Information Systems |  |  |
| MISM 2301 | Management Information Systems | 4 |
| Operations Management and Supply Chain Management |  |  |
| SCHM 2301 | Supply Chain and Operations Management | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| Strategy in Action |  |  |
| STRT 4501 or STRT 4516 | Strategy in Action <br> External Case Competition Challenge | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 170).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| Required Concentration |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN ACCOUNTING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of | following: | 8 |
| 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 |  |



## Second Business Concentration (Optional)

 following:Note: The following courses do not count toward this concentration:

Capstone Course

| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| :--- | :--- |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and <br> Alliances |
| ENTR 4512 | Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |


| CONCENTRATION IN FINANCE  <br> Code Title | Hours |
| :--- | :--- | ---: |
| Required Course |  |$\quad$|  |
| :--- |
| FINA 3301 |$\quad$| Corporate Finance |
| :--- |
| or FINA 3303 |$\quad$| Investments |
| :--- |

Electives


CONCENTRATION IN BUSINESS/INTERDISCIPLINARY
Code Title Hours

Complete four courses in consultation with approved
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code Title Hours
Required Course
MGMT 4501 Skills for Managerial Success 4
Electives
Complete three of the following:

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations <br> MGMT 3510 |
| Managing Global Teams Virtually and |  |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

## CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS Code $\quad$ Title Hours

## Required Courses

| MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | ---: |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  | 8 |
| Note: Only one non-MISM course may be used as an elective. <br> Complete two of the following: |  |  |
| MISM 3305 | Information Resource Management | 8 |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

## CONCENTRATION IN MARKETING

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |

MKTG 4512 International Marketing
CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br>  <br> Management | 4 |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 | 4 Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 | 1 Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |
| Take two: | 8 Take one: | 4 |  |  |
| MGSC 2301 <br> (AD) | MGSC 2301 <br> (AD) |  |  |  |
| ACCT 1201 | ACCT 1201 |  |  |  |
| INTB 1203 (IC and ER ) | INTB 1203 (IC and ER) |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concentration course |  | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ |  | Business core ${ }^{1}$ | 4 |  |  |
| Business core ${ }^{1}$ | 4 | Elective ${ }^{2}$ | 4 |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) |  | ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |
| BUSN 1100 | 1 | BUSN 1103 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | Concentration <br> course | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3304 | 4 Elective | 4 |  |
|  | ORGB 3201 | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | Concentration <br> course $^{3}$ | 4 Elective | 4 Co-op | 0 |
|  | Elective $^{4}$ | 4 Elective | 4 |  |
|  | Elective $^{4}$ | 4 |  |  |
|  | Elective $^{0}$ | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | (WI, CE, and |  |
|  | SI) |  |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{4}$ | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 131

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall H | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) |  | ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  | MGSC 23 <br> (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER) |  | INTB 120 (IC and ER) |  |  |  |
|  |  | BUSN 1100 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Concentration <br> course | 4 Co-op | Co-op | Elective $^{2}$ | 4 |
| Business <br> core $^{1}$ | 4 |  |  |  |
| Business $^{1}$ <br> core $^{1}$ | 4 | Elective | 4 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course ${ }^{3}$ | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 | 4 |  |  |  |
| Elective ${ }^{4}$ | 4 |  |  |  |
| Elective ${ }^{4}$ | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

## Year 5

$\left.\begin{array}{lcc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \begin{array}{lc}\text { Concentration } \\ \text { course }\end{array} & \begin{array}{c}4 \text { STRT 4501 } \\ \text { (WI, CE, and }\end{array} & 4 \\ & \text { SI) }\end{array}\right]$

Total Hours: 131
1 Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)
2 Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.
3 One concentration course will fulfill WI.
4 Electives may be used to complete a secondary business concentration.

## Bachelor of Science in International Business with

 Concentration in Accounting, BSIB
## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global <br> $\quad$Context |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br> Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business <br> Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for <br> Business |  |
| BUSN 1103 | Professional Development for Business <br> Co-op | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 174). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

## Required Concentration

Students in the Bachelor of Science in International Business with a concentration in Accounting are required to take the following prerequisite:

ACCT $2302 \begin{aligned} & \text { Managerial Accounting in a Global } \\ & \text { Context }\end{aligned}$

## CONCENTRATION IN ACCOUNTING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION

| Code | Title |
| :--- | :--- |
| Note: The following courses do not count toward this |  |
| concentration: |  |$\quad$| The Entrepreneurial Universe |
| :--- | :--- |


| Introductory Course |  |  |
| :---: | :---: | :---: |
| ENTR 2301 <br> or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |
| CONCENTRATION IN FINANCE |  |  |
| Code | Title |  |
| Required Course |  |  |
| FINA 3301 or FINA 3303 | Corporate Finance Investments | 4 |

## Electives

| Complete three of the following: |  |
| :--- | :--- |
| ENTR 3520 <br> or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment <br> Corporate Finance (if not selected as a <br> required course) |
| FINA 3303 | Investments (if not selected as a <br> required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance <br> FINA 4524Credit Analysis <br> FINA 4526Core Topics in Alternative Investments <br> FINA 4983Special Topics in Finance <br> FINA 4602Turnaround Management <br> FINA 4604Fixed-Income Securities <br> FINA 4608Advanced Financial Strategy <br> FINA 4610Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.

## CONCENTRATION IN MANAGEMENT

Code Title Hours
Required Course Skills for Managerial Success 4

Electives
Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :---: | :---: |
| MGMT 3330 | Developing Leaders for Global Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: Critical Challenges and New Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great Organizations |
| MGMT 4410 | Human Resources and Workforce Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |


| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

CONCENTRATION IN MARKETING
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br>  <br>  <br>  Management |  |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 Vacation <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 or ECON 1116 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate <br> year | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | 4 Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |

Elective 4

| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :--- |
| INTB 4202 | 4 <br>  <br> graduate- <br> level classes <br> for MIM |  |
| Elective | 4 |  |
| Elective | 4 |  |
| Elective | 4 | 0 |
|  | 16 |  |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| $\begin{aligned} & \text { ECON } 1116 \\ & \text { or ENTR } \\ & 2301 \end{aligned}$ | $\begin{aligned} & 4 \text { ECON } 1116 \\ & \text { or ENTR } \\ & 2301 \end{aligned}$ | 4 |  |  |
| BUSN 1100 | 1 |  |  |  |
|  | 18 | 17 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior <br> course | 4 <br> Concentratior <br> course | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Expatriate <br> year abroad- <br> school and <br> co-op | Co-op <br> abroad | Co-op <br> abroad | Vacation | 0 |
| Concentratior <br> course | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |
|  | 16 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ORGB 3201 | 4 |  |  |  |
| ENGW 3304 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| INTB 4202 | 4 Elective $^{1}$ | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131
1 If a student completes summer classes and no vacation, these electives will not be necessary.

## Entrepreneurship and Innovation

Website (http://www.damore-mckim.neu.edu)
214 Hayden Hall
617.373 .3241
617.373 .8628 (fax)

Marc H. Meyer, Robert J. Shillman Professor of Entrepreneurship, Matthews Distinguished Professor, and Group Coordinator, ma.meyer@northeastern.edu

Entrepreneurship and innovation offers a dynamic set of courses for students considering career paths as either startup entrepreneurs or corporate innovators. In addition to the general concentration, we also offer three specific tracks of study: technology entrepreneurship, family business entrepreneurship, and social entrepreneurship. We also offer exciting co-op jobs in a broad range of early stage firms as well as more established companies, including family businesses. Teaching you are professors who have also been entrepreneurs and innovators in their own careers and who are now accomplished researchers. This makes our courses both cutting edge and "real world."

There are also specialized field study programs abroad called Dialogues of Civilization in places such as South Africa, India, Italy, and South Korea. By taking one of these dialogues, a student has an opportunity to earn the right to use the global designation on his or her resumé,
i.e., global technology entrepreneurship, global family business entrepreneurship, or global social entrepreneurship.

The Northeastern Center for Entrepreneurship Education (NUCEE) is a university-wide program that helps undergraduate and graduate students, as well as alumni, start new companies. This is a system of experiential entrepreneurship education: Classroom education and co-ops are the first step. The next step is incubating new ventures right on campus in the student-led organization, IDEA. With our support, many of these ventures launch as funded and self-sustaining companies in the field. The Entrepreneurship and Innovation Group (http://www.northeastern.edu/ entrepreneurship) is the platform for many of these activities.

In addition to NUCEE, the Entrepreneurship and Innovation Group provides leadership with the Center for Family Business and the globally recognized Social Enterprise Institute (SEI). The Center for Family Business runs local programs that offer members advice and guidance on the many different aspects of running a family business, while SEI provides microfinance and small-business consulting field trips abroad.

Whether you wish to concentrate in entrepreneurship and innovation or use it as a dual concentration (such as with finance or marketing), these courses are important components of business education in today's economy. Even if you don't wish to start your own company, entrepreneurial thinking is a valued attribute of every executive in companies of all sizes and in all industries.

## Programs

## Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Entrepreneurship and Innovation (p. 178)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Entrepreneurship and Innovation (p. 182)


## Bachelor of Science in Business Administration with

Concentration in Entrepreneurship and Innovation, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

Business Core Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Mathematics |  |  |
| Complete one of the following: |  | 4 |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics |  |  |
| MGSC 2301 | Business Statistics | 4 |
| Macroeconomics and Microeconomics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |

## Business Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  |  |
| FINA 2201 | Financial Management | 4 |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Management Information Systems |  |  |
| MISM 2301 | Management Information Systems | 4 |
| Operations Management and Supply Chain Management |  |  |
| SCHM 2301 | Supply Chain and Operations Management | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| Strategy in Action |  |  |
| STRT 4501 or STRT 4516 | Strategy in Action <br> External Case Competition Challenge | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 179).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required


| FINA 4983 | Special Topics in Finance |
| :--- | :--- |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four courses in consultation with approved |  |  |
| D'Amore-McKim School of Business faculty member. |  |  |$\quad 16$

## CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration |  |

Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following:

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

## CONCENTRATION IN MARKETING

Code Title Hours

## Required Courses

| MKTG 3301 | Marketing Management | 4 |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 |

Electives
Complete two of the following: 8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation |  |

## Elective

| Complete one of the following: |  |
| :--- | :--- |
| SCHM 3308 | Supply Chain Analytics |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) |  | ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| MGSC 2301 <br> (AD) |  | MGSC 23 (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER ) |  | INTB 1203 (IC and ER) |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

## Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concentration course |  | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ | 4 | Business core ${ }^{1}$ | 4 |  |  |
| Business core ${ }^{1}$ | 4 | Elective ${ }^{2}$ | 4 |  |  |
| ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 | ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |
| BUSN 1100 | 1 | BUSN 1103 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Concentration <br> course | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3304 | 4 Elective | 4 |  |
|  | ORGB 3201 | 4 |  |  |
|  | Elective | 4 |  | 0 |
| 0 | 16 | 8 | 4 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | Concentration <br> course $^{3}$ | 4 Elective | 4 Co-op | 0 |
|  | Elective $^{4}$ | 4 Elective | 4 |  |
|  | Elective $^{4}$ | 4 |  |  |
|  | Elective | 4 | 8 | 0 |
| 0 | 16 |  | 4 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | (WI, CE, and |  |
|  | SI) |  |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{2}$ | 4 |
|  | 0 | 16 |

Total Hours: 131

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours | Spring Hound | Hours | Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 | $4$ | Business core ${ }^{1}$ | 4 | Vacation | 0 Vacation | 0 |
| BUSN 1102 | 1 | Business core ${ }^{1}$ | 4 |  |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) |  | ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 |  |  |  |
| Take two: | 8 | Take one: | 4 |  |  |  |
| MGSC 2301 <br> (AD) |  | MGSC 2301 <br> (AD) |  |  |  |  |
| ACCT 1201 |  | ACCT 1201 |  |  |  |  |

$\left.\begin{array}{lllll}\begin{array}{l}\text { INTB 1203 } \\ \text { (IC and } \\ \text { ER) }\end{array} & \begin{array}{l}\text { INTB } 1203 \\ \text { (IC and }\end{array} \\ & \text { ER) }\end{array}\right)$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective ${ }^{2}$ | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
| BUSN 1103 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Concentration <br> course | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 $^{3}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 | 0 | 0 | 0 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Concentration | 4 STRT 4501 |  |
| (WI, CE, and |  |  |
| course | SI) | 4 |
|  | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective | 16 | 16 |
|  |  |  |

Total Hours: 131
1 Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)
2 Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.

3 One concentration course will fulfill WI.
4 Electives may be used to complete a secondary business concentration.

## Bachelor of Science in International Business with Conc. in Entrepreneurship and Innovation, BSIB

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
| Context | 4 |  |
| MGGB 3201 2301 | Organizational Behavior | 4 |
| MKTG 2202 | Business Statistics | 4 |


| International Business Requirements |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment |  |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business | 4 |
|  | Administration Professions |  |
| BUSN 1100 | Introduction to Planning for Business | 1 |


| BUSN 1102 | Personal Skill Development for | 1 |
| :--- | :--- | :--- |
| BUSN 1103 | Business |  |
|  | Professional Development for Business | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 182). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

## Required Concentration

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION Hours
Code Title Ho

| Note: The following courses do not count toward this <br> concentration: <br> ENTR 1201 | The Entrepreneurial Universe |
| :---: | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| Introductory Course | Innovation! <br> ENTR 2301 |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |


| Capstone Course |
| :--- |
| Complete one of the following:  <br> ENTR 4501 Business Planning for Technology <br> Ventures <br> ENTR 4503 Business Planning for Small and <br> Medium Enterprises <br> ENTR 4506 Advanced Studies in Social Enterprise <br> Electives  |


| Complete two of the following: |  | 8 |
| :---: | :---: | :---: |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

CONCENTRATION IN ACCOUNTING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |

## ACCT 4414

| CONCENTRATION IN FINANCE <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 | Corporate Finance |  |
| or FINA 3303 | Investments | 4 |

Electives
Complete three of the following: 12

| ENTR 3520 or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment |
| :---: | :---: |
| FINA 3301 | Corporate Finance (if not selected as a required course) |
| FINA 3303 | Investments (if not selected as a required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.

## CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course |  |
| :--- | :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

Electives
Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |

MGMT $3530 \quad$ Project Management

| MGMT 4310 | The Management Practices of Great Organizations |  |
| :---: | :---: | :---: |
| MGMT 4410 | Human Resources and Workforce Analytics |  |
| MGMT 4603 | Leadership Seminar |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two o | following: | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |
| CONCENTRATION IN MARKETING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two o | ollowing: | 8 |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |
| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |

omplete one of the following:4

| SCHM 3320 | Demand Planning and Forecasting |
| :--- | :--- |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study <br> Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 <br> or ECON <br> 1116 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 |  | 0 |
|  | 0 | 16 | 8 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |  | Hours

Year 5

| Fall | Hours Spring Hours |  |
| :--- | :---: | :--- |
| INTB 4202 | 4 <br>  <br> Final <br> graduate- <br> level classes <br> for MIM |  |
| Elective | 4 |  |
| Elective | 4 |  |
| Elective | 4 | 0 |
|  | 16 |  |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 |  |  |  |
| or ENTR |  |  |  |  |
| BUSN 1100 | 1 | 4 |  |  |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior | 4 Concentratior | 4 |  |
|  | course | course |  |  |
|  |  |  |  |  |


| Elective | 4 |  |  |
| ---: | ---: | ---: | ---: |
| Elective | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Expatriate | 0 Co-op | Co-op | Vacation | 0 |
| year abroad- | abroad | abroad |  |  |

school and
co-op

| Concentratior <br> course | 4 |  |  |  |
| :--- | ---: | ---: | :--- | :--- |
| Elective | 4 |  |  |  |
| Elective | 4 |  | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Concentration <br> course | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ORGB 3201 | 4 |  |  |  |
| ENGW 3304 | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 16 | 0 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| INTB 4202 | 4 Elective $^{1}$ | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131
1 If a student completes summer classes and no vacation, these electives will not be necessary.

## Finance

Website (http://www.damore-mckim.neu.edu)
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617.373.3616
617.373 .8798 (fax)

Jeffery A. Born, Professor and Group Coordinator,
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The role of people trained in finance is expanding rapidly within the business world. Changes on the financial scene-rising securities prices, fluctuating inflation, currency values and interest rates, and globalization of markets-have created an awareness that financial knowledge is essential to the effective management of business firms and many other types of organizations.

Finance is the management of real and monetary assets for businesses, financial institutions, nonprofit organizations, governments, and individuals. Finance courses draw on accounting principles, economic theory, and quantitative methods. These courses develop methods to direct the way capital is acquired and managed. 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, 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, credit management, and risk management with corporations, banks, insurance companies, and other financial institutions.

## Programs

## Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Finance, BSBA (p. 186)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Finance, BSIB (p. 189)


## Dual Degree

- Bachelor of Science in Business Administration with Concentration in Finance, BSBA/Master of Science in Finance, MSF (p. 193)


## Bachelor of Science in Business Administration with

 Concentration in Finance, BSBA
## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.
Business Core Requirements

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |


| MATH 1341 | Calculus 1 for Science and Engineering |  |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics |  | 4 |
| MGSC 2301 | Business Statistics | 4 |
| Macroeconomics and Microeconomics | 4 |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics |  |

## Business Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  |  |
| FINA 2201 | Financial Management | 4 |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Management Information Systems |  |  |
| MISM 2301 | Management Information Systems | 4 |
| Operations Management and Supply Chain Management |  |  |
| SCHM 2301 | Supply Chain and Operations Management | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| Strategy in Action |  |  |
| STRT 4501 or STRT 4516 | Strategy in Action <br> External Case Competition Challenge | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 186).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| CONCENTRATION IN FINANCE <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 <br> or FINA 3303 | Corporate Finance <br> Investments | 4 |
| Electives |  |  |
| Complete three of the following: |  |  |
| ENTR 3520 | Impact Investing and Social Finance <br> or FINA 2720 <br> FINA 3301 | Sustainability in the Business Environment <br> Corporate Finance (if not selected as a <br> required course) |


| FINA 3303 | Investments (if not selected as a <br> required course) |
| :--- | :--- |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy <br> FINA 4610Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 |  |
| Electives |  | 8 |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br>  |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION

| Code | Title <br> Note: The following courses do not count toward this <br> concentration: |
| :--- | :--- |
| ENTR 1201 | The Entrepreneurial Universe | Hours

## Introductory Course

| ENTR 2301 | Innovation! | 4 |
| :---: | :---: | :---: |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |  |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code

Title

Hours

Complete four courses in consultation with approved

D'Amore-McKim School of Business faculty member.

| CONCENTRATION IN MANAGEMENT <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| MGMT 4501 |  |  |$\quad$| Skills for Managerial Success |
| :--- |

## $\begin{array}{lll}\text { CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS } \\ \text { Code } & \text { Title Hours }\end{array}$

| Required Courses |  |  |
| :---: | :---: | :---: |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

## CONCENTRATION IN MARKETING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 8 |
| Electives |  |  |
| Complete two of the following: |  |  |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |


| MKTG 4502 | Marketing in the Service Sector |
| :--- | :--- |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

## CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br>  <br>  <br>  Management |  |

## Elective

| Complete one of the following: |  |
| :--- | :--- |
| SCHM 3308 | Supply Chain Analytics |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, ECON 1116, or MATH 1231 (FQ) |  | ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  | MGSC 230 <br> (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER) |  | INTB 1203 (IC and ER) |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ | $\begin{aligned} & 4 \text { Business } \\ & \text { core }^{1} \end{aligned}$ | 4 |  |  |
| Business core ${ }^{1}$ | 4 Elective $^{2}$ | 4 |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | $\begin{aligned} & 4 \text { ECON } 1116 \text {, } \\ & 1115 \text {, or } \\ & \text { MATH } 1231 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |


| BUSN 1100 | 1 | BUSN 1103 | 1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 |  | 17 |  | 0 | 0 |
| Year 3 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 |  | Hours Summer 2 | Hours |
| Co-op | 0 | Concentration course | 4 | Elective | 4 Co-op | 0 |
|  |  | ENGW 3304 | 4 | Elective | 4 |  |
|  |  | ORGB 3201 | 4 |  |  |  |
|  |  | Elective | 4 |  |  |  |
|  | 0 |  | 16 |  | 8 | 0 |
| Year 4 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 |  | Hours Summer 2 | Hours |
| Co-op | 0 | Concentration course ${ }^{3}$ | 4 | Elective | 4 Co-op | 0 |
|  |  | Elective ${ }^{4}$ | 4 | Elective | 4 |  |
|  |  | Elective ${ }^{4}$ | 4 |  |  |  |
|  |  | Elective | 4 |  |  |  |
|  | 0 |  | 16 |  | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | (WI, CE, and |  |
|  | SI) |  |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{4}$ | 4 |
|  | Elective 0 | 4 |
|  |  | 16 |

Total Hours: 131

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, ECON 1116, or MATH 1231 (FQ) |  | ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  | $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  |  |  |
| ACCT 1201 |  | ACCT 1201 |  |  |  |
| INTB 1203 (IC and ER ) |  | INTB 1203 (IC and ER) |  |  |  |
|  |  | BUSN 1100 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Concentration <br> course | 4 Co-op | Co-op | Elective $^{2}$ | 4 |
| Business <br> core $^{1}$ | 4 |  | Elective | 4 |


| Business <br> core 1 | 4 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| ECON 1116, | 4 |  |  |  |
| 1115, or |  |  |  |  |
| MATH 1231 |  |  |  |  |
| (FQ) |  |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Concentration <br> course | 4 Co-op | Co-op | Elective | 4 |
| Business <br> core | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Concentration <br> course | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 $^{3}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 | 0 | 0 | 0 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Concentration | 4 STRT 4501 |  |
| course | (WI, CE, and | 4 |
|  | SI) |  |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131

1 Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)

2
Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.
3 One concentration course will fulfill WI.
4 Electives may be used to complete a secondary business concentration.

## Bachelor of Science in International Business with Concentration in Finance, BSIB

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34)

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business <br> Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |
| General Education | Hours |  |
| Code | Title | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br> BUSN 1100 | Administration Professions <br> Introduction to Planning for Business |
| Co-op and Careers | 1 |  |
| BUSN 1102 | Personal Skill Development for | 1 |
|  | Business | Professional Development for Business |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 190). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| Required Concentration |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN FINANCE |  |  |
| Code | Title | Hours |
| Required Course |  |  |
| FINA 3301 | Corporate Finance | 4 |
| or FINA 3303 | Investments |  |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| ENTR 3520 | Impact Investing and Social Finance |  |
| or FINA 2720 | Sustainability in the Business Environment |  |
| FINA 3301 | Corporate Finance (if not selected as a required course) |  |
| FINA 3303 | Investments (if not selected as a required course) |  |
| FINA 4310 | Working Capital Management |  |
| FINA 4312 | Issues in Corporate Governance |  |
| FINA 4320 | International Financial Management |  |
| FINA 4410 | Valuation and Value Creation |  |
| FINA 4412 | Personal Financial Planning |  |
| FINA 4420 | Mergers and Acquisitions |  |
| FINA 4512 | Financial Risk Management |  |
| FINA 4514 | Investment Banking |  |
| FINA 4516 | Real Estate Finance |  |
| FINA 4518 | Risk Management and Insurance |  |
| FINA 4524 | Credit Analysis |  |
| FINA 4526 | Core Topics in Alternative Investments |  |
| FINA 4983 | Special Topics in Finance |  |
| FINA 4602 | Turnaround Management |  |
| FINA 4604 | Fixed-Income Securities |  |
| FINA 4608 | Advanced Financial Strategy |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

## CONCENTRATION IN ACCOUNTING

Hours

## Required Courses

| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| :---: | :---: | :---: |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Code | Title | Hours |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |


| ENTR 3320 | Base of Pyramid Innovation |
| :---: | :---: |
| ENTR 3326 | Sustainability in the Latin American Business Environment |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code Title Hours

| Required Course |  |
| :--- | :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

## Electives

| Complete three of the following: |
| :--- |
| MGMT 3302 | | Megotiating in Business |  |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations <br> MGMT 3510 |
| Managing Global Teams Virtually and |  |
| Locally |  |


| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |

Electives

Note: Only one non-MISM course may be used as an elective.

| Complete two of the following: |  |
| :--- | :--- |
| MISM 3305 | Information Resource Management |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |


| CONCENTRATION IN MARKETING |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two | following: | 8 |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code Title Hours

| Required Courses |  | Hours |
| :--- | :--- | :--- |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> Management | 4 |

Elective
Complete one of the following:

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 Vacation <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2


Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 |  | 0 |
| 0 | 16 | 8 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate <br> year | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | 4 Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |


| Year 5 Hours Spring <br> Fall $\quad$ Hours |  |  |
| :--- | :---: | :---: |
| INTB 4202 | 4 Final <br> graduate- <br> level classes <br> for MIM |  |
| Elective | 4 |  |
| Elective | 4 |  |
| Elective | 4 | 0 |
|  | 16 |  |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.


## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 <br> or ENTR <br> 2301 | 4 |  |  |
| BUSN 1100 | 1 | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior <br> course | 4 Concentratior <br> course | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Expatriate 0 Co-op Co-op <br> year abroad-   | abroad | abroad | Vacation | 0 |
| school and <br> co-op |  |  |  |  |
| Concentratior <br> course | 4 |  |  |  |


| Elective 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ORGB 3201 | 4 |  |  |  |
| ENGW 3304 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| INTB 4202 | 4 Elective ${ }^{1}$ | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| 16 |  | 16 |  |  |

Total Hours: 131
${ }^{1}$ If a student completes summer classes and no vacation, these electives will not be necessary.

## Bachelor of Science in Business Administration with

 Concentration in Finance, BSBA/Master of Science in Finance, MSF
## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

Code
Title
Hours

## Mathematics



## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 194).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| FINA 3301 or FINA 3303 | Corporate Finance Investments | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| ENTR 3520 or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment |  |
| FINA 3301 | Corporate Finance (if not selected as a required course) |  |
| FINA 3303 | Investments (if not selected as a required course) |  |
| FINA 4310 | Working Capital Management |  |
| FINA 4312 | Issues in Corporate Governance |  |
| FINA 4320 | International Financial Management |  |
| FINA 4410 | Valuation and Value Creation |  |
| FINA 4412 | Personal Financial Planning |  |
| FINA 4420 | Mergers and Acquisitions |  |
| FINA 4512 | Financial Risk Management |  |
| FINA 4514 | Investment Banking |  |
| FINA 4516 | Real Estate Finance |  |
| FINA 4518 | Risk Management and Insurance |  |
| FINA 4524 | Credit Analysis |  |
| FINA 4526 | Core Topics in Alternative Investments |  |
| FINA 4983 | Special Topics in Finance |  |
| FINA 4602 | Turnaround Management |  |
| FINA 4604 | Fixed-Income Securities |  |
| FINA 4608 | Advanced Financial Strategy |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |

## BSBA/MSF Admissions Requirements

| FINA 3301 | Corporate Finance (a grade of B or <br> higher is required) | 4 |
| :--- | :--- | :---: |
| FINA 3303 | Investments (a grade of B or higher is <br> required) | 4 |

Students are required to have an undergraduate GPA of 3.250.

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Courses

FINA 6202
FINA 6204 International Finance Management 3
Upper-Level Finance Courses
Complete two courses from the range FINA 6000 to FINA 8
6999 but not FINA 6205, FINA 6209, or FINA 6219.
Graduate Open Elective
Complete one graduate open elective.
4

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Code | Title | Hours |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 | Innovation! | 4 |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |  |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |


| ENTR 3316 | Microfinance and Economic <br> Development in Latin America |
| :--- | :--- |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American <br> Business Environment |
| ENTR 3330 | Lean Design and Development for <br> Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective <br> Management of Operations and Growth |
| ENTR 3401 3403 | Managing Operations in a Technology- <br> ENTR Medium-Sized Enterprises |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 Impact Investing and Social Finance |  |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code Title Hours

| Required Course |  |
| :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

Electives
Complete three of the following:12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global |
|  | Sustainability |

MGMT 3340 Managing Healthcare Organizations: Critical Challenges and New Approaches

| MGMT 3420 | Managing Human Capital |
| :--- | :--- |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours

## Required Courses

MISM 3403 Data Management in the Enterprise 4

| MISM 4501 | Business Systems Integration | 4 |
| :---: | :---: | :---: |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |
| CONCENTRATION IN MARKETING |  |  |
| Code | Title |  |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |
| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| Code | Title |  |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Management

Website (http://www.damore-mckim.neu.edu)
112 Hayden Hall
617.373.2452
617.373.2491 (fax)

Cynthia Lee, Professor and Group Coordinator, c.lee@northeastern.edu
Managing people, projects, and programs requires a considerable range of knowledge and skills. Effective managers must understand the business, be interpersonally competent, behave ethically, and diagnose and deal with human and organizational dynamics. 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. This includes studying the principles of motivation, leadership, negotiation, conflict resolution, project management, managing teams, organizational change, and their impact on business results. In addition, students have the opportunity to improve their managing 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."

## Programs

## Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Management (p. 196)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Management (p. 200)


## Bachelor of Science in Business Administration with Concentration in Management, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

Code Title Hours

## Mathematics

Complete one of the following:

| MATH 1231 | Calculus for Business and Economics |
| :--- | :--- |
| MATH 1241 | Calculus 1 |
| MATH 1242 | Calculus 2 |



## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 197).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| CONCENTRATION IN MANAGEMENT |  |
| :--- | ---: |
| Code <br> Required Course | Title |$\quad$ Hours


| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics <br> Leadership Seminar |
| MGMT 4603 | Understanding Family Enterprise |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

## CONCENTRATION IN ACCOUNTING

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ACCT 3403 | Accounting Information Systems |  |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |  |
| ACCT 4412 | Auditing and Other Assurance Services |  |
| ACCT 4414 | Income Tax Determination and <br> Planning |  |


| CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION |  |
| :--- | :--- | :--- |
| Code | Title Hours |

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy <br> ENTR 4510New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| Introductory Course | Innovation! |
| ENTR 2301 |  |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |
| Capstone Course |  |


| Complete one of the following: |  |  |
| :---: | :---: | :---: |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |
| CONCENTRATION IN FINANCE |  |  |
| Code | Title |  |
| Required Course |  |  |
| $\begin{aligned} & \text { FINA } 3301 \\ & \text { or FINA } 3303 \end{aligned}$ | Corporate Finance Investments | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| ENTR 3520 or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environme |  |


| FINA 3301 | Corporate Finance (if not selected as a <br> required course) |
| :--- | :--- |
| FINA 3303 | Investments (if not selected as a <br> required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

 Code Title Hours Complete four courses in consultation with approved 16D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours

## Required Courses

| MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | :--- |
| MISM 4501 | Business Systems Integration | 4 |

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following:

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

CONCENTRATION IN MARKETING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |


| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |

Elective
Complete one of the following:

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall H | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BUSN 1101 | $4$ | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 | 1 | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 | ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  | $\begin{aligned} & \text { MGSC } 23 \\ & \text { (AD) } \end{aligned}$ |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER) |  | INTB 1203 (IC and ER) |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concentration course | $4$ | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ |  | Business core ${ }^{1}$ | 4 |  |  |


| Business core ${ }^{1}$ | 4 Elective $^{2}$ | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ECON 1116, 1115, or MATH 1231 (FQ) | $\begin{aligned} & 4 \text { ECON } 1116 \text {, } \\ & 1115, \text { or } \\ & \text { MATH } 1231 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Concentration course | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3304 | 4 Elective | 4 |  |
|  | ORGB 3201 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 Concentration course ${ }^{3}$ | 4 Elective | 4 Co-op | 0 |
|  | Elective ${ }^{4}$ | 4 Elective | 4 |  |
|  | Elective ${ }^{4}$ | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5
Fall Hours Spring Hours

Co-op 0 STRT $4501 \quad 4$
(WI, CE, and
SI)

|  | Elective $^{4}$ | 4 |
| :--- | :---: | :---: |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{0}$ | 4 |
| Total Hours: 131 |  | 16 |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall $\quad$ ll | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 | ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| MGSC 2301 <br> (AD) |  | $\text { MGSC } 23$ <br> (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER ) |  | INTB 120 (IC and ER) |  |  |  |
|  |  | BUSN 1100 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | Co-op | Elective ${ }^{2}$ | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
| BUSN 1103 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration <br> course | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 $^{\text {ENG }}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 |  | 0 | 0 |
| Elective $^{4}$ | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Concentration 4 <br> course STRT 4501 <br> (WI, CE, and  | 4 |  |
|  | SI) |  |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131
${ }^{1}$ Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)
2 Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.
${ }^{3}$ One concentration course will fulfill WI.
${ }^{4}$ Electives may be used to complete a secondary business concentration.

Bachelor of Science in International Business with
Concentration in Management, BSIB

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br>  <br> Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business <br> Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for <br> Business |  |
| BUSN 1103 | Professional Development for Business <br> Co-op | 1 |
|  |  | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 201). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| Required Concentration |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN MANAGEMENT |  |  |
| Code | Title | Hours |
| Required Course |  |  |
| MGMT 4501 | Skills for Managerial Success | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| MGMT 3302 | Negotiating in Business |  |
| MGMT 3330 | Developing Leaders for Global Sustainability |  |
| MGMT 3340 | Managing Healthcare Organizations: Critical Challenges and New Approaches |  |
| MGMT 3420 | Managing Human Capital |  |
| MGMT 3435 | Social Networks and Organizations |  |
| MGMT 3510 | Managing Global Teams Virtually and Locally |  |
| MGMT 3530 | Project Management |  |
| MGMT 4310 | The Management Practices of Great Organizations |  |
| MGMT 4410 | Human Resources and Workforce Analytics |  |
| MGMT 4603 | Leadership Seminar |  |
| ENTR 2215 | Understanding Family Enterprise |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

CONCENTRATION IN ACCOUNTING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |

ACCT 4501
Financial Reporting and Analysis 2 4

## Electives

Complete two of the following:

| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title Hours

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |  |
| :--- | :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |  |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |  |
| Introductory Course | Innovation! <br> ENTR 2301 <br> or ENTR 2303 | Entrepreneurial Marketing and Selling |
| Capstone Course <br> Complete one of the following: | 4 |  |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br>  <br> ENTR 4506 |

## Electives

Complete two of the following: 8

| ENTR 2206 | Global Social Enterprise |
| :--- | :--- |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |
| ENTR 3217 | Global Family Business Leadership |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| ENTR 3220 | International Entrepreneurship and <br> Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs <br> Global Entrepreneurship |
| ENTR 3306 | Microfinance and Economic <br> Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |




## Electives

| Note: Only one non-MISM course may be used as an elective. |
| :--- | :--- |
| Complete two of the following:  <br> MISM 3305 Information Resource Management <br> MISM 3404 Data Communications <br> MISM 3406 Introduction to Web Design, Practices, <br> and Standards <br> MISM 3515 Data Mining for Business <br> MISM 4512 Special Topics in Information <br> Technology Management <br> ACCT 3403 Accounting Information Systems <br> MKTG 4508 Digital Marketing <br> SCHM 3301 Global Supply Chain Strategy <br> SCHM 3305 Sourcing and Procurement <br> SCHM 3308 Supply Chain Analytics |

CONCENTRATION IN MARKETING
Code $\quad$ Title Hours

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |

Electives
Complete two of the following:
8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> $\quad$ Management |  |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |


| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| :--- | :--- |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 Vacation <br> or study <br> abroad/ <br> Dialogue | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 or ECON 1116 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate <br> year | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTB 4202 | 4 <br>  <br>  <br> graduate- <br> level classes <br> for MIM |  |
| Elective | 4 |  |
| Elective | 4 |  |
| Elective | 4 | 0 |
|  | 16 |  |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 <br> or ENTR <br> BUSN 1100 | 1 | 4 |  |
|  | 18 | 17 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior | 4 Concentratior | 4 |  |
|  | course | course |  |  |


|  | Elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Expatriate year abroadschool and co-op | 0 Co-op abroad | Co-op abroad | Vacation | 0 |
| Concentratior course | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ORGB 3201 | 4 |  |  |  |
| ENGW 3304 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |


| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| INTB 4202 | 4 Elective $^{1}$ | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131
1 If a student completes summer classes and no vacation, these electives will not be necessary.

## Management Information Systems

Website (http://www.damore-mckim.neu.edu)
314 Hayden Hall
617.373.3132
617.373 .3166 (fax)

Yang W. Lee, Associate Professor and Group Coordinator, y.lee@northeastern.edu

In the global information age, success for individuals and for companies requires the ability to manage information effectively. To that end, the goal of the information management concentration is to teach future managers how to use information systems (IS) and information 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 IS function of a company or in an IS consulting company
- To accelerate and enhance a career in another functional area such as accounting, finance, marketing, etc.

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 have an opportunity to develop new, cutting-edge approaches that allow them to use the powerful resource of information to its greatest advantage. They also have the opportunity to develop technical and problem-solving skills that are in high demand by employers.

Managers in the IS function need to interact frequently with other managers throughout an organization. Therefore, students are encouraged to complete a dual concentration in information management and another area of business. Graduates of this program have a wide range of career paths that suit their particular interests. Professional options include business/systems analyst, 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.

## Programs

Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Management Information Systems (p. 204)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Management Information Systems (p. 208)


## Bachelor of Science in Business Administration with Concentration in Management Info. Systems, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

| Code Title <br> Mathematics  | Hours |  |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |


| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| :---: | :---: | :---: |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics |  |  |
| MGSC 2301 | Business Statistics | 4 |
| Macroeconomics and Microeconomics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |

## Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  | 4 |
| FINA 2201 | Financial Management | 4 |
| Marketing |  | 4 |
| MKTG 2201 | Introduction to Marketing |  |


| Management Information Systems |  |
| :--- | :--- | :--- |
| MISM 2301 | Management Information Systems |


| Operations Management and Supply Chain Management |  |  |
| :--- | :--- | :--- |
| SCHM 2301 | Supply Chain and Operations | 4 |


| Organizational Behavior |  |  |
| :--- | :--- | :--- |
| ORGB 3201 | Organizational Behavior | 4 |

## Strategy in Action

STRT $4501 \quad$ Strategy in Action 4
or STRT 4516 External Case Competition Challenge
International Business/Social Responsibility
INTB 1203 International Business and Global 4 Social Responsibility

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 205).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

|  |  |  |
| :--- | :--- | ---: |
| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS <br> Code | Hours |  |
| Required Courses |  |  |$\quad$ Data Management in the Enterprise $\quad 4$.

Note: Only one non-MISM course may be used as an elective.
Complete two of the following:

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

## CONCENTRATION IN ACCOUNTING

Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ACCT 3403 | Accounting Information Systems |  |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |  |
| ACCT 4412 | Auditing and Other Assurance Services |  |
| ACCT 4414 | Income Tax Determination and <br>  | Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title Hours

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| Introductory Course | Innovation! <br> ENTR 2301 <br> or ENTR 2303 |
| Entrepreneurial Marketing and Selling |  |
| Complete one of the following: |  |
| ENTR 4501 | Business Planning for Technology <br> Ventures |



| FINA 3303 | Investments (if not selected as a <br> required course) |
| :--- | :--- |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code Title Hours

| Required Course |  | Hours |
| :--- | :--- | ---: |
| MGMT 4501 | Skills for Managerial Success | 4 |

Electives
Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

$\begin{array}{lll}\text { CONCENTRATION IN MARKETING } \\ \text { Code } & \text { Title Hours }\end{array}$

## Required Courses

| MKTG 3301 | Marketing Management | 4 |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 |

Electives
Complete two of the following: 8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |


| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT  <br> Code Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |$\quad$|  |  |
| :---: | ---: |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3310 | Logistics and Transportation <br> Management |

Elective
Complete one of the following:

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.


Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concentration course | $4$ | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ |  | Business core ${ }^{1}$ | 4 |  |  |


| Business core ${ }^{1}$ | 4 Elective $^{2}$ | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ECON 1116, 1115, or MATH 1231 (FQ) | $\begin{aligned} & 4 \text { ECON } 1116 \text {, } \\ & 1115, \text { or } \\ & \text { MATH } 1231 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Concentration course | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3304 | 4 Elective | 4 |  |
|  | ORGB 3201 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 Concentration course ${ }^{3}$ | 4 Elective | 4 Co-op | 0 |
|  | Elective ${ }^{4}$ | 4 Elective | 4 |  |
|  | Elective ${ }^{4}$ | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5
Fall Hours Spring Hours
Co-op 0 STRT $4501 \quad 4$
(WI, CE, and
SI)

|  | Elective $^{4}$ | 4 |
| :--- | :---: | :---: |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{0}$ | 4 |
| Total Hours: 131 |  | 16 |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall $\quad$ ll | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 | ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| MGSC 2301 <br> (AD) |  | $\text { MGSC } 23$ <br> (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 (IC and ER ) |  | INTB 120 (IC and ER) |  |  |  |
|  |  | BUSN 1100 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | Co-op | Elective ${ }^{2}$ | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
| BUSN 1103 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration <br> course | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 $^{\text {ENG }}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Concentration | 4 | STRT 4501 |
| (WI, CE, and |  |  |
| course | SI) | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ Elective | 4 |  |
|  | 16 | 16 |

Total Hours: 131
${ }^{1}$ Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)
2 Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.
${ }^{3}$ One concentration course will fulfill WI.
${ }^{4}$ Electives may be used to complete a secondary business concentration.

Bachelor of Science in International Business with Conc. in Management Information Systems, BSIB

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br>  <br> Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business <br> Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for <br> Business |  |
| BUSN 1103 | Professional Development for Business <br> Co-op | 1 |
|  |  | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 209). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

## Required Concentration

Students in the Bachelor of Science in International Business with a Concentration in Management Information Systems are required to take the following prerequisite:

MISM 2301 Management Information Systems
CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: | 8 |  |


| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Code | Title | Hours |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |


| ENTR 3316 | Microfinance and Economic Development in Latin America |
| :---: | :---: |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American Business Environment |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

$\begin{array}{ll}\text { CONCENTRATION IN BUSINESS/INTERDISCIPLINARY } \\ \text { Code } & \text { Title }\end{array}$
Complete four courses in consultation with approved
Hours

D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code Title Hours

## Required Course

MGMT 4501 Skills for Managerial Success 4
Electives
Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management <br> MGMT 4310 |
| The Management Practices of Great |  |
| Organizations |  |

CONCENTRATION IN MARKETING
Code Title Hours

## Required Courses

| MKTG 3301 | Marketing Management | 4 |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 |

Electives
Complete two of the following: 8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

## CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> Management | 4 |

## Elective

Complete one of the following:
4

| SCHM 3320 | Demand Planning and Forecasting |
| :--- | :--- |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 Vacation <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 or ECON 1116 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate <br> year | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | 4 Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :--- |
| INTB 4202 | 4 Final <br> graduate- <br> level classes <br> for MIM |  |
| Elective | 4 |  |
| Elective | 4 |  |
| Elective | 4 | 0 |
|  | 16 |  |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.


## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 <br> or ENTR <br> BUSN 1100 | 1 | 4 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior | 4 Concentratior | 4 |  |
|  | course | course |  |  |



## Marketing

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According to the American Marketing Association, marketing is "an organizational function and a set of processes for creating, communicating, and delivering value to customers, and for managing customer relationships in ways that benefit the organization and its stakeholders." Create something people want, tell them about it, and deliver it to them in a way so that everyone benefits.

The concentration in marketing offers students an opportunity to develop an understanding of the role of the marketing function in the organization as well as detailed insight into various aspects of marketing processes, including strategy, buyer behavior, market research and analytics, digital and mobile media, marketing communications, sales, services, and new product development. Students prepare for possible careers
in areas such as brand and product management, digital marketing, marketing research, marketing communications, and sales and account management.

## Programs

## Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Marketing (p. 212)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Marketing (p. 216)


## Bachelor of Science in Business Administration with Concentration in Marketing, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: |  |  |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics | Business Statistics | 4 |
| MGSC 2301 |  |  |


| Macroeconomics and Microeconomics |  |  |
| :--- | :--- | :--- |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |



| ENTR 3220 | International Entrepreneurship and <br> Innovation |
| :--- | :--- |
| ENTR 3305 | Business Modeling for Entrepreneurs <br> ENTR 3306 |
| Global Entrepreneurship |  |


| FINA 4604 | Fixed-Income Securities |
| :--- | :--- |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation |
|  | Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title Hours
Complete four courses in consultation with approved 16

D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT
Code $\quad$ Title Hours

| Required Course |  | 4 |
| :--- | :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |  |

## Electives

Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management <br> MGMT 4310The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN FINANCE
Code Title Hours

| Required Course <br> FINA 3301 <br> or FINA 3303 | Corporate Finance <br> Investments |
| :--- | :--- |
| Electives |  |
| Complete three of the following: |  |
| ENTR 3520 | Impact Investing and Social Finance |
| or FINA 2720 | Sustainability in the Business Environment <br> FINA 3301 |
| Forporate Finance (if not selected as a |  |
| required course) |  |


| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | ---: |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> Management | 4 |
| Elective |  |  |
| Complete one of the following: | 4 |  |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |  |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

| Year 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring |  | Hours Summer 1 |  | Hours Summer 2 | Hours |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 | Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |  |
| ENGW 1111, ECON 1116, or MATH 1231 (FQ) |  | ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |  |
| Take two: | 8 | Take one: | 4 |  |  |  |
| $\begin{aligned} & \text { MGSC } 2301 \\ & \text { (AD) } \end{aligned}$ |  | MGSC 23 <br> (AD) |  |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |  |
| INTB 1203 (IC and ER) |  | INTB 1203 (IC and ER) |  |  |  |  |
| 17 |  |  | 16 |  | 0 | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ |  | Business core ${ }^{1}$ | 4 |  |  |
| $\text { core }^{1}$ |  |  |  |  |  |
| ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) |  | ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |
| BUSN 1100 | 1 | BUSN 1103 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :--- | :---: | ---: |
| Co-op | Concentration <br> course | 4 Elective | 4 Co-op | 0 |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 STRT 4501 | 4 |
|  | (WI, CE, and |  |
|  | SI) |  |


|  | Elective $^{4}$ | 4 |
| :--- | ---: | ---: |
|  | Elective $^{4}$ | 4 |
|  | Elective | 4 |
| 0 | 16 |  |
| Total Hours: 131 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring |  | Hours Summer 1 | Hours Summer 2 | Hours |
| BUSN 1101 |  | Business core ${ }^{1}$ | 4 Vacation | 0 Vacation | 0 |
| BUSN 1102 |  | Business core ${ }^{1}$ | 4 |  |  |
| ENGW 1111, <br> ECON 1116, <br> or MATH <br> 1231 (FQ) |  | ENGW 1111, ECON 1116, or MATH 1231 (FQ) | 4 |  |  |
| Take two: | 8 | Take one: | 4 |  |  |
| MGSC 2301 <br> (AD) |  | $\text { MGSC } 23$ <br> (AD) |  |  |  |
| ACCT 1201 |  | ACCT 120 |  |  |  |
| INTB 1203 <br> (IC and ER) |  | INTB 1203 (IC and ER) |  |  |  |
| ER) |  | BUSN 1100 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

|  | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective ${ }^{2}$ | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  |  |  |
| $\begin{aligned} & \text { ECON } 1116 \text {, } \\ & 1115, \text { or } \\ & \text { MATH } 1231 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |  |
| BUSN 1103 | 1 |  |  |  |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| ORGB 3201 | 4 |  |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Concentration <br> course | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 $^{\text {ENG }}$ | 4 |  |  |  |
| Elective $^{4}$ | 4 |  |  | 0 |
| Elective $^{4}$ | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Concentration | 4 | STRT 4501 |
| (WI, CE, and | 4 |  |
| course | SI) |  |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective $^{4}$ | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 131
${ }^{1}$ Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301)
${ }^{2}$ Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement.
${ }^{3}$ One concentration course will fulfill WI.
${ }^{4}$ Electives may be used to complete a secondary business concentration.

## Bachelor of Science in International Business with

 Concentration in Marketing, BSIB
## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global | 4 |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |
|  | Context |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :---: | :---: | :---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for Business | 1 |
| BUSN 1103 | Professional Development for Business Co-op | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 217). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| Required Concentration |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN MARKETING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services <br> ACCT 4414Income Tax Determination and <br> Planning |
| CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION  <br> Code Title |  |

\(\left.$$
\begin{array}{l}\text { Note: The following courses do not count toward this } \\
\text { concentration: } \\
\begin{array}{cl}\text { ENTR 1201 } & \text { The Entrepreneurial Universe }\end{array} \\
\hline \text { ENTR 3308 }\end{array}
$$ \begin{array}{l}Business Economic History of South <br>

Africa\end{array}\right]\)| Business, Economics, and History of |
| :--- |
| ENTR 3318 |

ENTR $3328 \quad$ Field Research in Sustainable Business

| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| :---: | :---: | :---: |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the | following: | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |  |

FINA $4610 \quad$ Entrepreneurial Finance, Innovation Valuation, and Private Equity

| CONCENTRATION IN FINANCE <br> Code <br> Required Course | Title |
| :--- | :--- |
| FINA 3301 |  |
| or FINA 3303 |  |$\quad$| Corporate Finance |
| :--- |
| Investments |$\quad$ Hours

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code Title
Complete four courses in consultation with approved
Hours

D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT

| Code <br> Required Course <br> MGMT 4501 | Title | Hours |
| :--- | :--- | ---: |
| Electives | Skills for Managerial Success | 4 |
| Complete three of the following: | 12 |  |
| MGMT 3302 | Negotiating in Business |  |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability | Managing Healthcare Organizations: <br> Critical Challenges and New |
| MGMT 3340 | Approaches |  |
| MGMT 3420 3435 | Managing Human Capital |  |
| Social Networks and Organizations |  |  |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |  |16


| MGMT 4310 | The Management Practices of Great <br> Organizations |
| :--- | :--- |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours
Required Courses

| MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | :--- |
| MISM 4501 | Business Systems Integration | 4 |

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following: 8

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br>  <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| SCHM 3508 3301 | Digital Marketing |
| SCHM 3305 | Global Supply Chain Strategy |
| SCHM 3308 | Supply Chain Analytics |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code $\quad$ Title Hours

## Required Courses

| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | :---: |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br>  Management | 4 |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management
(SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 Vacation <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 or ECON 1116 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 | 8 | 0 |
|  | 0 | 16 |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | y Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring $\quad$ Hours |
| :--- | :---: | :--- |
| INTB 4202 | 4 Final <br> graduate- <br> level classes <br> for MIM |
| Elective | 4 |
| Elective | 4 |


| Elective | 4 |  |
| :--- | ---: | :--- |
|  | 16 | 0 |
| Total Hours: 131 |  |  |

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 <br> or ENTR <br> BUSN 1100 | 1 | 4 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior | 4 Concentratior | 4 |  |
|  | course | course |  |  |
|  | Elective | 4 |  | 0 |
|  | Elective | 4 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Expatriate <br> year abroad- <br> school and <br> co-op | Co-op <br> abroad | Co-op <br> abroad | Vacation | 0 |
| Concentratior <br> course | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |
|  | 16 |  |  |  |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ORGB 3201 | 4 |  |  |  |
| ENGW 3304 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| INTB 4202 | 4 Elective $^{1}$ | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 |  |  |
| Total Hours: 131 |  |  |  |  |
| ${ }^{1}$ If a student completes summer classes and no vacation, these electives will not be necessary. |  |  |  |  |

## Supply Chain Management

Website (http://www.damore-mckim.neu.edu)
314 Hayden Hall
617.373.3132
617.373 .3166 (fax)

Yang W. Lee, Associate Professor and Group Coordinator, y.lee@northeastern.edu

From the Fortune 500 manufacturer to the small firm that produces, sells, or distributes products, all companies have a supply chain 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.

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, information management, 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.

## Programs <br> Bachelor of Science in Business Administration (BSBA)

- Bachelor of Science in Business Administration with Concentration in Supply Chain Management (p. 220)


## Bachelor of Science in International Business (BSIB)

- Bachelor of Science in International Business with Concentration in Supply Chain Management (p. 224)


## Bachelor of Science in Business Administration with Concentration in Supply Chain Management, BSBA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

Code Title Hours
Mathematics

| Complete one of the following: |
| :--- |
| MATH 1231 Calculus for Business and Economics <br> MATH 1241 Calculus 1 <br> MATH 1242 Calculus 2 <br> MATH 1251 Calculus and Differential Equations for <br> Biology 1 <br> MATH 1252 Calculus and Differential Equations for <br> Biology 2 <br> MATH 1340 Intensive Calculus for Engineers <br> MATH 1341 Calculus 1 for Science and Engineering <br> MATH 1342 Calculus 2 for Science and Engineering |
| Statistics |
| MGSC 2301 | Business Statistics | 4 |
| :--- |


| Macroeconomics and Microeconomics |  |  |
| :--- | :--- | :--- |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |

## Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  | 4 |
| FINA 2201 | Financial Management | 4 |
| Marketing |  | 4 |
| MKTG 2201 | Introduction to Marketing |  |


| Management Information Systems |  |  |
| :---: | :---: | :---: |
| MISM 2301 | Management Information Systems | 4 |
| Operations Management and Supply Chain Management |  |  |
| SCHM 2301 | Supply Chain and Operations Management | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| Strategy in Action |  |  |
| STRT 4501 | Strategy in Action | 4 |
| or STRT 4516 | External Case Competition Challenge |  |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 221).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 |  |
| Electives |  | 8 |

ACCT 3403 Accounting Information Systems

| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title Hours

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| Introductory Course | Innovation! |
| ENTR 2301 |  |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |

Capstone Course
Complete one of the following: 4

| ENTR 4501 | Business Planning for Technology Ventures |
| :---: | :---: |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |
| Electives |  |
| Complete two of the following: |  |
| ENTR 2206 | Global Social Enterprise |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |
| ENTR 3217 | Global Family Business Leadership |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |
| ENTR 3220 | International Entrepreneurship and Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American Business Environment |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |


| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| :--- | :--- |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 Corporate Entrepreneurship through |  |
| Global Growth, Acquisitions, and |  |


| CONCENTRATION IN FINANCE <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 | Corporate Finance | 4 |
| or FINA 3303 | Investments |  |

## Electives

Complete three of the following: 12

| ENTR 3520 |
| :--- | :--- |
| or FINA 2720 | | Impact Investing and Social Finance |
| :--- |
| Sustainability in the Business Environment |
| FINA |
| FINA 3303 |
| Corporate Finance (if not selected as a |
| required course) |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY <br> Code Title Hours

Complete four courses in consultation with approved
Hours

D'Amore-McKim School of Business faculty member.

CONCENTRATION IN MANAGEMENT
Code $\quad$ Title Hours

| Required Course |  |
| :--- | ---: | ---: |
| MGMT 4501 Skills for Managerial Success | 4 |
| Electives |  |
| Complete three of the following: | 12 |


| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global |
|  | Sustainability |


| MGMT 3340 | Managing Healthcare Organizations: |
| :--- | :--- |
|  | Critical Challenges and New |
|  | Approaches |


| MGMT 3420 | Managing Human Capital |
| :--- | :--- |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |


| MGMT 3530 | Project Management |
| :--- | :--- |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours

## Required Courses

MISM $3403 \quad$ Data Management in the Enterprise 4
MISM $4501 \quad$ Business Systems Integration 4

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following: 8

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |

## CONCENTRATION IN MARKETING

Code Title Hours

## Required Courses

MKTG $3301 \quad$ Marketing Management 4
MKTG 3401 Marketing Research 4

Electives
Complete two of the following: 8
16

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |


| MKTG 4502 | Marketing in the Service Sector |
| :--- | :--- |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.


## Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 | Concentration course | 4 Vacation | 0 Co-op | 0 |
| Business core ${ }^{1}$ | 4 | Business core ${ }^{1}$ | 4 |  |  |
| Business core ${ }^{1}$ | 4 | Elective ${ }^{2}$ | 4 |  |  |
| ECON 1116, 1115, or MATH 1231 (FQ) | 4 | ECON 1116, 1115, or MATH 1231 (FQ) | 4 |  |  |
| BUSN 1100 | 1 | BUSN 1103 | 1 |  |  |
|  | 17 |  | 17 | 0 | 0 |



| Elective $^{4}$ | 4 |  |  |
| ---: | ---: | ---: | ---: |
| Elective | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | (WI, CE, and |  |
|  | SI) |  |
|  | Elective $^{4}$ | 4 |
|  | Elective $^{4}$ | 4 |
|  | Elective | 4 |
|  |  | 16 |

Total Hours: 131

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BUSN 1101 | 4 Business <br> core | 4 Vacation | 0 Vacation | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co-op | Co-op | Elective ${ }^{2}$ | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  |  |  |
| ECON 1116, <br> 1115, or <br> MATH 1231 (FQ) | 4 |  |  |  |
| BUSN 1103 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Concentration course | 4 Co -op | Co-op | Elective | 4 |
| Business core ${ }^{1}$ | 4 |  | Elective | 4 |


| ECON 1116, <br> 1115, or <br> MATH 1231 <br> (FQ) | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 16 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall H | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Concentration course ${ }^{3}$ | 4 Co-op | Co-op | Vacation |  |
| ENGW 3304 | 4 |  |  |  |
| Elective ${ }^{4}$ | 4 |  |  |  |
| Elective ${ }^{4}$ | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |
| Year 5 |  |  |  |  |
| Fall H | Hours Spring | Hours |  |  |
| Concentration course | 4 STRT 4501 (WI, CE, and $\mathrm{SI})$ | 4 |  |  |
| Elective ${ }^{4}$ | 4 Elective | 4 |  |  |
| Elective ${ }^{4}$ | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 |  |  |
| Total Hours: 131 |  |  |  |  |
| Business core courses as indicated in the sample study plan include: Managerial Accounting (ACCT 2301), Financial Management (FINA 2201), Introduction to Marketing (MKTG 2201), Management Information Systems (MISM 2301), and Supply Chain and Operations Management (SCHM 2301) |  |  |  |  |
| Students are strongly encouraged to complete Innovation! (ENTR 2301) to fulfill their NU Path El requirement. |  |  |  |  |
| One concentration course will fulfill WI. |  |  |  |  |
| 4 Electives may be used to complete a secondary business concentration. |  |  |  |  |

## Bachelor of Science in International Business with Concentration in Supply Chain Management, BSIB

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements,
and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |
|  | Context |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br> Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business <br> Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for <br> Business |  |
| BUSN 1103 | Professional Development for Business <br> Co-op | 1 |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 225). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

## Required Concentration

Students in the Bachelor of Science in International Business with a Concentration in Supply Chain Management are required to take the following prerequisite:

| SCHM 2301 | Supply Chain and Operations Management |  |
| :---: | :---: | :---: |
| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING |  |  |
| :--- | :--- | ---: |
| Code <br> Required Courses |  | Hours |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |  |
| :--- | :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |  |
| ACCT 4412 | Auditing and Other Assurance Services |  |
| ACCT 4414 | Income Tax Determination and <br> Planning |  |
| CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION   <br> Code Title Hours |  |  |

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |


| ENTR 3346 | Family Business in Italy |
| :--- | :--- |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |

Introductory Course
ENTR 2301 Innovation! 4
or ENTR 2303 Entrepreneurial Marketing and Selling
Capstone Course
Complete one of the following: 4

| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |

Electives
Complete two of the following: 8

| ENTR 2206 | Global Social Enterprise |
| :--- | :--- |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |
| ENTR 3217 | Global Family Business Leadership |
| ENTR 3219 Microfinance: Fostering |  |
| Entrepreneurship in the Developing |  |
| World |  |


| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| :--- | :--- |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and |
| ENTR 4512 | Alliances |
| Social Entrepreneurship and <br> Sustainable Development in India |  |

FINA $4610 \quad$ Entrepreneurial Finance, Innovation Valuation, and Private Equity

| CONCENTRATION IN FINANCE |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Course |  |  |
| FINA 3301 or FINA 3303 | Corporate Finance Investments | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| ENTR 3520 or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment |  |
| FINA 3301 | Corporate Finance (if not selected as a required course) |  |
| FINA 3303 | Investments (if not selected as a required course) |  |
| FINA 4310 | Working Capital Management |  |
| FINA 4312 | Issues in Corporate Governance |  |
| FINA 4320 | International Financial Management |  |
| FINA 4410 | Valuation and Value Creation |  |
| FINA 4412 | Personal Financial Planning |  |
| FINA 4420 | Mergers and Acquisitions |  |
| FINA 4512 | Financial Risk Management |  |
| FINA 4514 | Investment Banking |  |
| FINA 4516 | Real Estate Finance |  |
| FINA 4518 | Risk Management and Insurance |  |
| FINA 4524 | Credit Analysis |  |
| FINA 4526 | Core Topics in Alternative Investments |  |
| FINA 4983 | Special Topics in Finance |  |
| FINA 4602 | Turnaround Management |  |
| FINA 4604 | Fixed-Income Securities |  |
| FINA 4608 | Advanced Financial Strategy |  |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |  |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Complete four courses in consultation with approved D'Amore-McKim School of Business faculty member. |  | 16 |
|  |  |  |
| CONCENTRATION IN MANAGEMENT |  |  |
| Code | Title | Hours |
| Required Course |  |  |
| MGMT 4501 | Skills for Managerial Success | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| MGMT 3302 | Negotiating in Business |  |
| MGMT 3330 | Developing Leaders for Global Sustainability |  |
| MGMT 3340 | Managing Healthcare Organizations: Critical Challenges and New Approaches |  |
| MGMT 3420 | Managing Human Capital |  |
| MGMT 3435 | Social Networks and Organizations |  |
| MGMT 3510 | Managing Global Teams Virtually and Locally |  |
| MGMT 3530 | Project Management |  |
| MGMT 4310 | The Management Practices of Great Organizations |  |


| MGMT 4410 | Human Resources and Workforce Analytics |  |
| :---: | :---: | :---: |
| MGMT 4603 | Leadership Seminar |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise |  |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  |  |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |
| CONCENTRATION IN MARKETING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two of the following: |  |  |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |
| Plan of Study |  |  |
| Five-Year Program: Year 4 Abroad, 2 Co-ops (MSIM) |  |  |
| Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor. |  |  |
| - Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes. |  |  |
| - This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain |  |  |

management requires Supply Chain and Operations Management (SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 MKTG 2202 | 4 Vacation <br> or study <br> abroad / <br> Dialogue | 0 <br> INTB 1202 <br> or study <br> abroad/ <br> Dialogue | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENTR 2301 | 4 INTB 2202 | 4 Elective | 4 Co-op | 0 |
| or ECON |  |  |  |  |
| 1116 |  |  |  |  |
| Concentratior course | 4 Concentratior course | 4 Concentratior course | 4 |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| BUSN 1100 | 1 BUSN 1103 | 1 |  |  |
|  | 17 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ORGB 3201 | 4 INTB 3202 | 4 Vacation | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | ENGW 3304 | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Expatriate <br> year | Expatriate <br> year | Expatriate <br> year | Expatriate <br> year |  |
| Elective | 4 Co-op <br> abroad | Co-op <br> abroad | Co-op <br> abroad |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

## Year 5

| Fall | Hours Spring Hours |
| :--- | :---: | :--- |
| INTB 4202 | 4 Final <br> graduate- <br> level classes <br> for MIM |
| Elective | 4 |
| Elective | 4 |


| Elective | 4 |  |
| :--- | ---: | :--- |
|  | 16 | 0 |

Total Hours: 131

## Five-Year Program: Year 3 Abroad with 3 Co-ops (Dual Degree)

Note: Plan of study will vary based upon student's academic program. Individual study plans will be created with academic advisor.

- Language proficiency tested at the end of each year to determine progression. Electives may be moved or fulfill language classes.
- This plan of study will not work for the United Kingdom or Spain. Consult advisor for study plan example. Finance concentration requires Managerial Accounting in a Global Context (ACCT 2302) and Principles of Macroeconomics (ECON 1115) to fulfill prerequisites. Accounting concentration requires Managerial Accounting in a Global Context (ACCT 2302) as a prerequisite. Supply chain management requires Supply Chain and Operations Management
(SCHM 2301) as prerequisite. Management information systems requires Management Information Systems (MISM 2301) as a prerequisite.

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTB 1202 | 4 MKTG 2202 | 4 Elective | 4 Co-op | 0 |
| BUSN 1102 | 1 FINA 2202 | 4 Concentratior <br> course | 4 |  |
| MGSC 2301 | 4 ENGW 1111 | 4 |  |  |
| ACCT 1202 | 4 BUSN 1103 | 1 |  |  |
| ECON 1116 <br> or ENTR <br> 2301 | 4 ECON 1116 <br> or ENTR <br> 2301 | 4 |  |  |
| BUSN 1100 | 1 | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTB 2202 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior | 4 Concentratior |  |  |
| course | course | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Expatriate <br> year abroad- <br> school and <br> co-op | Cocation <br> Co-op | Co-op <br> abroad | 0 |  |



## Business Administration Combined Majors

- Business Administration and Interactive Media, BS (p. 228)
- Computer Science and Business Administration, BS (p. 231)
- Economics and Business Administration, BS (p. 235)
- Information Science and Business Administration, BS (p. 237)
- Mathematics and Business Administration, BS (p. 240)
- Political Science and Business Administration, BS (p. 243)

Business Administration and Interactive Media, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Business Core Requirements

| Code Title <br> Mathematics  | Hours |  |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1260 | Math Fundamentals for Games |  |
| Macroeconomics and Microeconomics | 4 |  |
| ECON 1115 | Principles of Macroeconomics | 4 |

## or ECON 1116 Principles of Microeconomics

## Business Requirements <br> Code Title Hours

| Accounting |  |  |
| :--- | :--- | :--- |
| ACCT 1201 | Financial Accounting and Reporting | 4 |


| Business Statistics |  |  |
| :--- | :--- | :--- |
| MGSC 2301 | Business Statistics | 4 |

International Business/Social Responsibility

| INTB 1203 | International Business and Global | 4 |
| :--- | :--- | :--- |
|  | Social Responsibility |  |


| Marketing |  |
| :--- | :--- |
| MKTG 2201 | Introduction to Marketing |


| Finance |  |
| :--- | :--- |
| FINA 2201 | Financial Management |

Organizational Behavior
ORGB $3201 \quad$ Organizational Behavior 4
Business Core Option
Complete one of the following: 4

| ACCT 2301 | Managerial Accounting |
| :--- | :--- |
| MISM 2301 | Management Information Systems |
| SCHM 2301 | Supply Chain and Operations <br>  |

Professional Development

| BUSN 1103 | Professional Development for Business | 1 |
| :---: | :--- | :--- |
| Co-op |  |  |

## Interactive Media Requirements

Code Title Hours

Interactive Media Courses

| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| :---: | :---: | :---: |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 2260 | Programming Basics | 4 |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools | 5 |
| ARTG 3500 | Transmedia Design | 4 |
| ARTH 1100 | Interactive Media and Society | 4 |
| Art and Design |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools | 5 |

## Marketing Concentration

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| At least one course must be taken from the business courses |  |  |
| listed and one from the interactive media courses listed. |  |  |
| Complete three of the following: | 12 |  |
| Business |  |  |


| MKTG 4502 | Marketing in the Service Sector |
| :--- | :--- |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| Interactive Media |  |
| ARTF 2220 | 4D Fundamentals: Sequence and <br> Drawing |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3350 | Typography 2 |
| ARTD 2200 | Interactive Narrative |
| ARTG 3250 | Physical Computing |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTE 4901 | Special Topics in Art and Design Studio |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following list. Requirements for the concentrations are listed below (p. 229).

- Accounting
- Business/Interdisciplinary
- Entrepreneurship and Innovation
- Finance
- Management
- Management Information Systems
- Supply Chain Management


## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Courses |  |  |
| Note: These courses also satisfy requirements above: |  |  |
| MKTG 3301 | Marketing Management | 4 |
| ARTG 3500 | Transmedia Design | 4 |


| Capstone | $4-8$ |
| :--- | :--- |
| Complete the interactive media capstone or the business |  |
| capstone: |  |

capstone:
Interactive Media Capstone

| ARTG 4700 | Interaction Team Degree Project 1 |
| :---: | :--- |
| ARTG 4701 | Interaction Team Degree Project 2 |
| Business Capstone |  |
| STRT 4501 | Strategy in Action |

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Program Requirement

132 total semester hours required

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of th | following: | 8 |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br>  <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br>  |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY Hours Code Title

Complete four courses in consultation with approved 16

D'Amore-McKim School of Business faculty member.
CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title Hours

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| ENTR 2301 | Innovation! <br> or ENTR 2303 |
| Capstrepreneurial Marketing and Selling |  |


| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| :--- | :--- |
| ENTR 3220 | International Entrepreneurship and <br> Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs <br> Global Entrepreneurship |
| ENTR 3306 | Microfinance and Economic <br> Development in Latin America |
| ENTR 3316 | Base of Pyramid Innovation | ENTR 3320 | Sustainability in the Latin American |
| :--- |
| Eusiness Environment |

CONCENTRATION IN FINANCE

| Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 | Corporate Finance | 4 |
| or FINA 3303 | Investments |  |

## Electives

Complete three of the following:

| ENTR 3520 <br> or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment <br> Corporate Finance (if not selected as a <br> required course) |
| :--- | :--- |
| FINA 3301 | Investments (if not selected as a <br> required course) |
| FINA 3303 | Working Capital Management |
| FINA 4310 | Issues in Corporate Governance |
| FINA 4312 | International Financial Management |
| FINA 4320 | Valuation and Value Creation |
| FINA 4410 | Personal Financial Planning |
| FINA 4412 | Mergers and Acquisitions |
| FINA 4420 | Financial Risk Management |
| FINA 4512 | Investment Banking |
| FINA 4514 | Real Estate Finance |
| FINA 4516 | Risk Management and Insurance |
| FINA 4518 | Credit Analysis |
| FINA 4524 | Core Topics in Alternative Investments |
| FINA 4526 |  |


| FINA 4983 | Special Topics in Finance |
| :--- | :--- |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br>  |

CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course |  |
| :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

## Electives

Complete three of the following:

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br>  <br>  <br> Sustainability |


| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| :--- | :--- |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations <br> MGMT 3510 <br> Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

## CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS <br> Code Title Hours

 Required Courses| MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | :--- |

MISM $4501 \quad$ Business Systems Integration 4

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following: 8

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code Title Hours

## Required Courses

| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | :--- |
| SCHM 3305 | Sourcing and Procurement | 4 |


| SCHM 3310 | Logistics and Transportation <br> Management |
| :--- | :--- |
| Elective | 4 |
| Complete one of the following: | 4 |
| SCHM 3308 | Supply Chain Analytics |
| SCHM 3320 | Demand Planning and Forecasting <br> SCHM 3330Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Computer Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required in Computer Science
Fundamental Courses.

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Computer Science Senior Seminar |  |  |
| :--- | :--- | :--- |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |

## Upper Division CS/IS Elective

With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as a computer science elective.
Complete one course in the following ranges:
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Business Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Business | Courses |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| FINA 2201 | Financial Management | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| MGSC 2301 | Business Statistics | 4 |
| Choose one of the following: | 4 |  |


| STRT 4501 | Strategy in Action |
| :--- | :--- |
| STRT 4514 | Internal Case Competition Challenge |
| STRT 4516 | External Case Competition Challenge |
|  |  |
|  |  |
| Strategy in Action (STRT 4501), Internal Case Competition Challenge |  |
| (STRT 4514) and External Case Competition Challenge (STRT 4516) all |  |
| satisfy the Capstone Requirement. |  |

## Business Concentration

Complete a four-course business concentration from the following list. Requirements for the concentrations are listed below (p. 232).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Marketing
- Supply Chain Management


## Information Resource Management

| Code | Title | Hours |
| :--- | :--- | ---: |
| Information Resource | Management |  |
| MISM 3305 | Information Resource Management <br> (integrative course) | 4 |
|  |  |  |

$\left.\begin{array}{llr}\begin{array}{ll}\text { Mathematics and Economics Requirements } \\ \text { Code } \\ \text { Mathematics }\end{array} & \text { Title } & \text { Hours } \\ \text { MATH 1341 } & \text { Calculus 1 for Science and Engineering }\end{array}\right) 4$ 4

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |


| SOCL 4528 | Computers and Society |
| :--- | :--- |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Computer Science English Requirement

Note: Students are strongly encouraged to take Advanced Writing in the Technical Professions (ENGW 3302) but may substitute Interdisciplinary Advanced Writing in the Disciplines (ENGW 3315).

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing | 4 |  |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## Required General Electives

Code Title Hours

Complete three general electives.

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Computer Science GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN ACCOUNTING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two | following: | 8 |


| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| :--- | :--- |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code $\quad$ Title Hours
Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |  |
| :---: | :---: | :---: |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| $\begin{aligned} & \text { ENTR } 2301 \\ & \quad \text { or ENTR } 2303 \end{aligned}$ | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the | following: | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |


| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| :--- | :--- |
| ENTR 3348 | Family Business: A Global Perspective <br> ENTR 3401 <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and |
| ENTR 4512 | Alliances |
| Social Entrepreneurship and |  |
| Sustainable Development in India |  |


| CONCENTRATION IN FINANCE  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Course |  | 4 |
| FINA 3301 | Corporate Finance |  |
| or FINA 3303 | Investments |  |

Electives
Complete three of the following: 12

| ENTR 3520 <br> or FINA 2720 | Impact Investing and Social Finance Sustainability in the Business Environment |
| :---: | :---: |
| FINA 3301 | Corporate Finance (if not selected as a required course) |
| FINA 3303 | Investments (if not selected as a required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course |  |
| :--- | ---: |
| MGMT $4501 \quad$ Skills for Managerial Success | 4 |
| Electives | 12 |
| Complete three of the following: |  |


| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

## CONCENTRATION IN MARKETING

Code Title Hours

## Required Courses

| MKTG 3301 | Marketing Management | 4 |
| :--- | :--- | :--- |
| MKTG 3401 | Marketing Research | 4 |

## Electives

Complete two of the following: 8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code Title Hours

## Required Courses

| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | :--- |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> Management | 4 |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 | CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 | CS 2511 | 1 |  |  |
| CS 2501 | 1 | CS 2800 | 4 |  |  |
| CS 1200 | 1 | CS 2801 | 1 |  |  |
| ECON 1115 | 4 | Elective | 4 |  |  |
| ENGW 1111 | 4 | ECON 1116 | 4 |  |  |
| CS 1801 | 0 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 | CS 4800 | 4 Vacation | 0 Co-op | 0 |
| MATH 1341 | 4 | CS 3200 | 4 |  |  |
| ACCT 1201 | 4 | ACCT 2301 | 4 |  |  |
| MGSC 2301 | 4 | FINA 2201 | 4 |  |  |
|  |  | CS 1210 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CS 3650 | 4 ORGB 3201 | 4 Co-op | 0 |
|  | MISM 3305 | 4 MKTG 2201 | 4 |  |
|  | Business <br> elective | 4 |  |  |
|  | ENGW 3302 | 4 | 8 | 0 |
|  | 0 | 16 |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | 0 CS 3700 | 4 Elective | 4 Co-op |  |
|  | Business <br> elective | 4 Elective | 4 |  |
| Business <br> elective | 4 |  |  |  |
|  | CS <br> undergraduat <br> elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | Business |  |
| elective | 4 |  |
|  | CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | SOCL 4528 | 4 |
|  | 0 | 17 |

[^3]Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 CS 2800 | 4 |  |  |
| CS 1200 | 1 CS 2801 | 1 |  |  |
| ECON 1115 | 4 Elective | 4 |  |  |
| ENGW 1111 | 4 ECON 1116 | 4 |  | 0 |
| CS 1801 | 0 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 1341 | 4 |  |  |  |
| ACCT 1201 | 4 |  |  |  |
| MGSC 2301 | 4 |  |  |  |
| CS 1210 | 1 |  |  | 0 |
|  | 17 | 0 | 0 |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CS 4800 | 4 Co-op | Co-op | 0 ORGB 3201 | 4 |
| CS 3200 | 4 |  | MKTG 2201 | 4 |
| ACCT 2301 | 4 |  |  |  |
| FINA 2201 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3650 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MISM 3305 | 4 |  | Elective | 4 |
| Business <br> elective | 4 |  |  |  |
| ENGW 3302 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | :---: |
| CS <br> undergraduate <br> elective | 4 STRT 4501 | 4 |
| Business <br> elective | 4 SOCL 4528 | 4 |
| Business <br> elective | 4 CS 4500 | 4 |
| CS 3700 | 4 Business <br> elective <br> CS 4000 | 4 |
| 16 | 17 |  |

Total Hours: 134

## Economics and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Economics Requirements

Grades in required economics courses must average a minimum GPA of 2.000.
$\left.\begin{array}{lll}\text { Code } & \text { Title } & \text { Hours } \\ \text { Introduction to College }\end{array}\right)$

## Economics Electives

Complete four courses from the following lists with no more 16
than one at the introductory level:
Introductory
ECON 1200 to ECON 1990

| Intermediate/Advanced |  |
| :--- | :--- |
| ECON 2990 to ECON 3499 |  |
| ECON 3520 | History of Economic Thought |
| ECON 3915 | Intermediate Selected Topics in <br> Macroeconomics |
| ECON 3916 | Intermediate Selected Topics in <br> Microeconomics |
| ECON 3990 | Elective <br> ECON 4600 to ECON 4681 <br> ECON 4915 to ECON 4916 <br> ECON 4965 <br> ECON 4970 to ECON 4990 <br> ECON 4992$\quad$Directed Study |


| Business Requirements <br> Code <br> Accounting | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |

Finance

| FINA 2201 | Financial Management | 4 |
| :---: | :---: | :---: |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |

## Additional Requirements

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1231 <br> or MATH 1341 | Calculus for Business and Economics <br> Calculus 1 for Science and Engineering | 4 |
| Computer Science | Computer Science and Its Applications | 4 |
| CS 1100 | Professional Development for Business | 1 |
| Co-op Preparation | Co-op |  |
| BUSN 1103 | Professional Development for Co-op |  |
| or EESH 2000 |  |  |

## Capstone Requirement

| ECON 4692 | Senior Economics Seminar | 4 |
| :--- | :--- | :--- |
| STRT 4501 | Strategy in Action | 4 |

## Business Concentration

Complete one of the following business concentrations. Requirements for the concentrations are listed below (p.235).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Management Information Systems
- Marketing
- Supply Chain Management


## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Economics GPA Requirement

Minimum 2.000 GPA required in all economics courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## Program Requirement

128 total semester hours required

| Concentrations |  |  |
| :--- | :--- | ---: |
| CONCENTRATION IN ACCOUNTING   <br> Code Title  <br> Required Courses   |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |


| Complete two of the following: |  | 8 |
| :---: | :---: | :---: |
| 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 |  |  |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 | Innovation! | 4 |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |  |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |


| ENTR 3330 | Lean Design and Development for Entrepreneurs |
| :---: | :---: |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |
| CONCENTRATION IN FINANCE |  |
| Code | Title |
| Required Course |  |
| FINA 3301 or FINA 3303 | Corporate Finance Investments |
| Electives |  |
| Complete three of the following: |  |
| $\begin{aligned} & \text { ENTR } 3520 \\ & \text { or FINA } 2720 \end{aligned}$ | Impact Investing and Social Finance <br> Sustainability in the Business Environment |
| FINA 3301 | Corporate Finance (if not selected as a required course) |
| FINA 3303 | Investments (if not selected as a required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT

Code Title Hours
Required Course
MGMT 4501 Skills for Managerial Success 4
Electives

| Complete three of the following: |  |
| :--- | :--- |
| MGMT 3302 | Negotiating in Business |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management <br> The Management Practices of Great <br> MGMT 4310 |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar <br> Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours


CONCENTRATION IN MARKETING
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 8 |
| Electives |  |  |
| Complete two of the following: | 8 |  |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |

MKTG 4512 International Marketing
CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Information Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science | 1 |
|  | Overview 2: Co-op Preparation |  |

## Computer Science Fundamental Courses

A grade of C - or higher is required in Computer Science
Fundamental courses.
CS 1800 Discrete Structures 4 and CS 1801 and Recitation for CS 1800
CS $2500 \quad$ Fundamentals of Computer Science $1 \quad 5$
and CS 2501 and Lab for CS 2500
CS $2510 \quad$ Fundamentals of Computer Science 2
and CS 2511 and Lab for CS 2510
CS 2800 Logic and Computation
and CS 2801 and Lab for CS 2800
Computer Science Required Courses
CS 3200 Database Design 4

CS $3500 \quad$ Object-Oriented Design 4
CS $4800 \quad$ Algorithms and Data 4

## Computer Science Senior Seminar

| CS 4000 | Senior Seminar | 1 |
| :---: | :---: | :---: |
| or THTR 1170 | The Eloquent Presenter |  |
| Information Science Required Courses |  |  |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and Development | 4 |
| IS 4800 | Empirical Research Methods | 4 |
| Integrative Courses |  |  |
| MISM 3305 | Information Resource Management | 4 |
| MISM 3404 | Data Communications | 4 |


| Business Courses |  |
| :--- | :--- | :--- |
| Code | Title Hours |

## Required Business Courses

| ACCT 1201 | Financial Accounting and Reporting | 4 |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 |
| FINA 2201 | Financial Management | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| MGSC 2301 | Business Statistics | 4 |
| Choose one of the following: ${ }^{1}$ |  |  |
| STRT 4501 | Strategy in Action | 4 |
| STRT 4514 | Internal Case Competition Challenge | 4 |
| STRT 4516 | External Case Competition Challenge | 4 |

${ }^{1}$ Strategy in Action (STRT 4501), Internal Case Competition Challenge (STRT 4514), External Case Competition Challenge (STRT 4516) all satisfy the Capstone Requirement.

## Business Concentration

Complete a four-course business concentration from the following list. Requirements for the concentrations are listed below (p. 238).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Marketing
- Supply Chain Management

| Mathematics and Economics Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Mathematics |  |  |
| MATH 1341 or MATH 1231 | Calculus 1 for Science and Engineering Calculus for Business and Economics | 4 |
| Economics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| Computing and Social Issues |  |  |
| Code | Title | Hours |
| Complete one of the following: |  | 4 |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |


| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| :--- | :--- | :--- |
| IA 5240 Cyberlaw: Privacy, Ethics, and Digital <br> Rights <br> Computer Science English Requirement  <br> Code  <br> College Writing Title | Hours |  |
| ENGW 1111 | First-Year Writing |  |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions <br> Interdisciplinary Advanced Writing in the | 4 |

Required General Electives

Code $\quad$ Title
Complete three general electives.

Hours

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Information Science GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Business Concentrations

CONCENTRATION IN ACCOUNTING

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: | Accounting Information Systems |  |
| ACCT 3403 | Strategic Cost Analysis for Decision |  |
| ACCT 3416 | Making |  |



| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| :--- | :--- |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations <br> MGMT 3510 |
| Managing Global Teams Virtually and |  |
| Locally |  |

CONCENTRATION IN MARKETING
Code $\quad$ Title Hours

| Required Courses |  |  |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  | 8 |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MISM 3404 | 4 ORGB 3201 | 4 Co-op | 0 |
|  | FINA 2201 | 4 MKTG 2201 | 4 |  |
|  | MATH 1341 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 IS 4800 | 4 Elective | 4 Co-op | 0 |
|  | MISM 3305 | 4 Elective | 4 |  |
|  | Business elective | 4 |  |  |
|  | Business elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | 0 STRT 4501 | 4 |  |  |
|  | Business elective | 4 |  |  |
|  | Business elective | 4 |  |  |
|  | SOCL 4528 | 4 |  |  |
|  | CS 4000 | 1 |  |  |
|  | 0 | 17 |  |  |

Total Hours: 134

## Mathematics and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).
Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 IS 3500 | 4 Vacation | 0 Co-op | 0 |
| CS 3500 | 4 CS 3200 | 4 |  |  |
| ACCT 1201 | 4 ACCT 2301 | 4 |  |  |
| MGSC 2301 | 4 CS 4800 | 4 |  |  |
|  | CS 1210 | 1 | 0 | 0 |

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Calculus and Linear Algebra (Required) and Differential Equations (Recommended) |  |  |
| Complete either O | n 1 or Option 2 below: | 8 |
| Option 1 (Recommended) |  |  |
| MATH 2321 | Calculus 3 for Science and Engineering |  |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering |  |
| Option 2 |  |  |
| MATH 2321 | Calculus 3 for Science and Engineering |  |
| MATH 2331 | Linear Algebra |  |
| Co-op Reflections |  |  |
| MATH 3000 | Co-op and Experiential Learning Reflection Seminar 1 | 1 |
| or MATH 4000 | Co-op and Experiential Learning Reflection Seminar 2 |  |

## Mathematics Electives

$\begin{array}{ll}\text { Complete three courses in the range MATH } 3001 \text { to MATH } & 12 \\ \text { 5999. The following courses are recommended: }\end{array}$

| 5999. The following courses are recommended: |  |
| :--- | :--- |
| MATH 4681 | Probability and Risks |

Business Requirements
Code Title Hours
Accounting
ACCT $1201 \quad$ Financial Accounting and Reporting 4
ACCT 2301 Managerial Accounting 4

## Finance

FINA $2201 \quad$ Financial Management 4

| Marketing |  |
| :--- | :--- |
| MKTG 2201 | Introduction to Marketing |


| Organizational Behavior |  |  |
| :--- | :--- | :--- |
| ORGB 3201 | Organizational Behavior | 4 |

International Business/Social Responsibility
INTB $1203 \quad$ International Business and Global 4

| Strategy in Action |  |  |
| :--- | :--- | :--- |
| STRT 4501 | Strategy in Action | 4 |

## Additional Requirements

Code Title
Hours

## Economics

ECON 1115
Principles of Macroeconomics

| ECON 1116 | Principles of Microeconomics | 4 |
| :--- | :--- | :---: |
| Co-op Preparation |  | 1 |
| BUSN 1103 | Professional Development for Business <br> Co-op | 1 |
| or EESC 2000 | Professional Development for Co-op |  |

## Integrative Course

Note: Financial Risk Management (FINA 4512) also counts toward the finance concentration.

## Finance Concentration

| Code | Title | Hours |
| :--- | :--- | ---: |
| Finance Requirements |  |  |
| FINA 3301 | Corporate Finance | 4 |
| FINA 3303 | Investments | 4 |
| FINA 4512 | Financial Risk Management | 4 |

Finance Electives
Complete one of the following: 4

| ENTR 3520 <br> or FINA 2720 | Impact Investing and Social Finance <br> Sustainability in the Business Environment |
| :--- | :--- |
| FINA 4604 | Fixed-Income Securities <br> (Recommended) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> FINA 4983 |

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following list. Requirements for the concentrations are listed below (p. 242).

- Accounting
- Entrepreneurship and Innovation
- Interdisciplinary Business
- Management
- Management Information Systems
- Marketing
- Supply Chain Management


## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Mathematics GPA Requirement

Minimum 2.000 GPA required in all mathematics courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## Program Requirement

128 total semester hours required


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |

## Electives


CONCENTRATION IN MANAGEMENT Hours

| Required Course |  | 4 |
| :--- | :--- | ---: |
| MGMT 4501 | Skills for Managerial Success |  |
| Electives |  | 12 |
| Complete three of the following: |  |  |
| MGMT 3302 | Negotiating in Business |  |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |  |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New |  |
| MGMT 3420 | Approaches |  |
| MGMT 3435 | Social Networks and Organizations |  |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |  |


| MGMT 3530 | Project Management |
| :---: | :--- |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

## $\begin{array}{ll}\text { CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS } \\ \text { Code } & \text { Title Hours }\end{array}$

| Required Courses <br> MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | ---: |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  |  |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information <br> Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

CONCENTRATION IN MARKETING
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |


| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT <br> Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation <br> Management |  |
|  |  |  |

## Elective

Complete one of the following:

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Political Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Political Science Major Requirements

or MGSC 2301 Business Statistics
Code Title Hours

Introduction to College

| POLS 1000 | Political Science at Northeastern | 1 |
| :---: | :--- | :--- |
| or BUSN 1102 | Personal Skill Development for Business |  |

Poltical Science Requirements

| POLS 1150 | American Government | 4 |
| :--- | :--- | ---: |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

Political Science Restricted Electives
Complete two of the following: 8

| POLS 3307 | Public Policy and Administration |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 3405 | International Political Economy |
| POLS 3487 | Politics of Developing Nations |

## Political Science Electives

Complete two courses in the following range, or complete a 8 Political Science concentration as outlined below: POLS 3300 to POLS 5999

## Statistics

POLS $2400 \quad$ Quantitative Techniques 4

Hours

## 

4444

POLS $2345 \quad$ Urban Policies and Politics
POLS 3405 International Political Economy
POLS $3487 \quad$ Politics of Developing Nations

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 244).

- American Political Institutions
- Identity, Culture, and Politics
- Law and Legal Studies

| Business <br> Code | Requirements |  |
| :--- | :--- | ---: |
| Accounting | Title | Hours |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  |  |
| FINA 2201 | Financial Management | 4 |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |

Additional Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Mathematics |  |  |
| MATH 1231 or MATH 1341 | Calculus for Business and Economics Calculus 1 for Science and Engineering | 4 |
| Economics |  |  |
| ECON 1115 or ECON 1116 | Principles of Macroeconomics <br> Principles of Microeconomics | 4 |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |
| Co-op Preparation |  |  |
| BUSN 1103 | Professional Development for Business Co-op | 1 |
| or EESH 2000 | Professional Development for Co-op |  |


| Capstone Requirement |  | 4 |
| :---: | :--- | :--- |
| POLS 4701 Political Science Senior Capstone | 4 |  |
| or STRT 4501 | Strategy in Action |  |

## Business Concentration

Complete one of the following business concentrations. Requirements for the concentrations are listed below (p. 244).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Management Information Systems
- Marketing
- Supply Chain Management


## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Political Science GPA Requirement

Minimum 2.000 GPA required in all political science courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## Program Requirement

128 total semester hours required

| Business Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN ACCOUNTING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of th | following: | 4 |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |
| Electives |  |
| Complete two of the following: |  |
| ENTR 2206 | Global Social Enterprise |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |


| ENTR 3217 | Global Family Business Leadership |
| :--- | :--- |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| ENTR 3220 | International Entrepreneurship and <br> Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic <br> Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American <br> Business Environment |
| ENTR 3330 | Lean Design and Development for <br> Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520 Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and <br> Alliances |
| ENTR 4512 | Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |


| CONCENTRATION IN FINANCE <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| FINA 3301 |  |  |
| or FINA 3303 |  |  |$\quad$| Corporate Finance |
| :--- |
| Investments |$\quad 4$


| FINA 4526 | Core Topics in Alternative Investments |
| :--- | :--- |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course |  |
| :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

## Electives

Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global |
|  | Sustainability |

MGMT 3340 Managing Healthcare Organizations:
Critical Challenges and New Approaches

| MGMT 3420 | Managing Human Capital |
| :--- | :--- |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS Hours
Code Title Holer
Code Title Hours
Required Courses
MISM $3403 \quad$ Data Management in the Enterprise 4
MISM $4501 \quad$ Business Systems Integration 4

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following: 8

| MISM 3305 | Information Resource Management |
| :--- | :--- |
| MISM 3404 | Data Communications |
| MISM 3406 | Introduction to Web Design, Practices, <br> and Standards |
| MISM 3515 | Data Mining for Business |
| MISM 4512 | Special Topics in Information <br> Technology Management |
| ACCT 3403 | Accounting Information Systems |
| MKTG 4508 | Digital Marketing |
| SCHM 3301 | Global Supply Chain Strategy |
| SCHM 3305 | Sourcing and Procurement |
| SCHM 3308 | Supply Chain Analytics |

CONCENTRATION IN MARKETING
Code $\quad$ Title Hours
Required Courses
MKTG $3301 \quad$ Marketing Management 4

| MKTG 3401 | Marketing Research | 4 |
| :---: | :---: | :---: |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |
| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| Code | Title |  |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |
| Elective |  |  |
| Complete one o | following: | 4 |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting |  |
| SCHM 3330 | Sustainability and Supply Chain Management |  |
| SCHM 4401 | Advanced Problems in Supply Chain Management |  |

## Political Science Concentrations (Optional)

CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS
Code Title Hours

Complete four of the following: 16

| POLS 2350 | State and Local Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code <br> Core Course | Title | Hours |
| :--- | :--- | ---: |
| POLS 3415 | Ethnic Political Violence | 4 |
| or POLS 3418 | Nationalism |  |
| Electives |  |  |
| Complete three of the following: | 12 |  |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |


| POLS 2368 | Music and Politics |
| :--- | :--- |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and <br> Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |
| CONCENTRATION IN LAW AND LEGAL STUDIES | Hours |
| Code | Title |
| Complete four of the following: |  |
| POLS 2330 | American Political Thought |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## Business Administration PlusOne Programs

## Programs

- Bachelor of Science in Business Administration/Master of Science in Finance, BSBA/MSF (p. 193)
- Bachelor of Science in International Business/Master of Science in Information Management, BSIB/MSIM (p. 249)


## Bachelor of Science in Business Administration with Concentration in Finance, BSBA/Master of Science in Finance, MSF

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements Differences and Diversity (DD), Creative Expression and Innovation (EI), and Natural and Designed World (ND) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Mathematics |  |  |
| Complete one of the following: |  | 4 |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Statistics |  |  |
| MGSC 2301 | Business Statistics | 4 |
| Macroeconomics and Microeconomics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |

## Business Requirements

Code Title Hours

| Accounting |  |  |
| :--- | :--- | :--- |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance | Financial Management | 4 |
| FINA 2201 | Introduction to Marketing | 4 |
| Marketing | 4 |  |
| MKTG 2201 | Management Information Systems | 4 |
| MISM 2301 | Management Information Systems |  |
| Operations Management and Supply Chain Management |  |  |
| SCHM 2301 | Supply Chain and Operations <br> Management | 4 |


| Organizational Behavior |  |  |
| :--- | :--- | :--- |
| ORGB 3201 | Organizational Behavior | 4 |

## Strategy in Action

STRT 4501
Strategy in Action
4
or STRT 4516 External Case Competition Challenge
International Business/Social Responsibility
INTB 1203 International Business and Global
Social Responsibility

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 194).

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required


## BSBA/MSF Admissions Requirements

| FINA 3301 | Corporate Finance (a grade of B or <br> higher is required) | 4 |
| :--- | :--- | :---: |
| FINA 3303 | Investments (a grade of B or higher is <br> required) | 4 |

Students are required to have an undergraduate GPA of 3.250.

## Graduate Course Work to Be Taken As an Undergraduate Student <br> Minimum 3.000 GPA required in all graduate courses <br> Required Courses <br> FINA 6202 <br> FINA 6204 International Finance Management 3

Upper-Level Finance Courses
Complete two courses from the range FINA 6000 to FINA 8
6999 but not FINA 6205, FINA 6209, or FINA 6219.
Graduate Open Elective
Complete one graduate open elective.
4

## Second Business Concentration (Optional)

A second business concentration is optional and may be chosen from the following:

| CONCENTRATION IN ACCOUNTING  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Courses | Financial Reporting and Analysis 1 | 4 |
| ACCT 3401 | Financial Reporting and Analysis 2 | 4 |
| ACCT 4501 |  | 8 |
| Electives |  |  |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION

| Code <br> Note: The following courses do not count toward this <br> concentration: | Hours |
| :--- | :--- |
| ENTR 1201 | The Entrepreneurial Universe |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy <br> ENTR 4510New Venture Laboratory Abroad <br> ENTR 4514Development Practice and Global <br> Citizenship in India |


| Introductory Course |  |
| :--- | :--- |
| ENTR 2301 <br> or ENTR 2303 | Innovation! <br> Capstone Course |
| Entrepreneurial Marketing and Selling | 4 |
| Complete one of the following: | 4 |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |
| Electives |  |
| Complete two of the following: |  |
| ENTR 2206 | Global Social Enterprise |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change <br> Global Family Business Leadership |
| ENTR 3217 | Microfinance: Fostering |
| ENTR 3219 | Entrepreneurship in the Developing <br> World |


| ENTR 3220 | International Entrepreneurship and <br> Innovation |
| :--- | :--- |
| ENTR 3305 | Business Modeling for Entrepreneurs <br> ENTR 3306 <br> Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic <br> Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American <br> Business Environment |
| ENTR 3330 | Lean Design and Development for <br> Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| ENTR 3520Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and |
| ENTR 4512 | Alliances <br> Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY

Code

Title

Hours

Complete four courses in consultation with approved 16
D'Amore-McKim School of Business faculty member.
CONCENTRATION IN MANAGEMENT

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Course |  |  |
| MGMT 4501 | Skills for Managerial Success | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations <br> Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |


| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two of the following: |  | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

CONCENTRATION IN MARKETING
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |

Electives
Complete two of the following: 8

| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |


| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |

## Elective

| Complete one of the following: |  |
| :--- | :--- |
| SCHM 3308 | Supply Chain Analytics |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Bachelor of Science in International Business, BSIB/ International Management, MSIM

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Differences and Diversity (DD), Natural and Designed World (ND), and Formal and Quantitative Reasoning (FQ) are not explicitly satisfied by required courses in the business curriculum at this time. Students are responsible for satisfying these requirements, and if these are not fulfilled in required major courses, they should use general electives to do so.

## Business Core

| Code | Title | Hours |
| :--- | :--- | ---: |
| ACCT 1202 | Financial Accounting in a Global | 4 |
|  | Context | 4 |
| ENTR 2301 | Innovation! | 4 |
| FINA 2202 | Financial Management in a Global |  |
|  | Context | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MGSC 2301 | Business Statistics | 4 |
| MKTG 2202 | Introduction to Marketing in a Global |  |
|  | Context |  |

## International Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| INTB 1202 | Becoming a Global Manager | 4 |
| INTB 2202 | Analyzing the Global Business | 4 |
|  | Environment | 4 |
| INTB 3202 | Managing the International Assignment | 4 |
| INTB 4202 | Executing Global Strategy | 4 |

## General Education

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1116 | Principles of Microeconomics | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3304 | Advanced Writing in the Business <br> Administration Professions | 4 |
| BUSN 1100 | Introduction to Planning for Business <br> Co-op and Careers | 1 |
| BUSN 1102 | Personal Skill Development for <br> Business | 1 |


| BUSN 1103 | Professional Development for Business <br> Co-op |
| :--- | :--- |

## Language Proficiency or Minor Requirement

Students must test to a level of B1 proficiency in the language of their destination to qualify for their expatriate year.

Note: Students who opt for the expatriate year in England or Ireland must complete a globally focused general minor to earn the BSIB degree. A list of qualifying minors may be found on the main D'Amore McKim School of Business Undergraduate page (p. 169).

## Concentration

Complete the required concentration appropriate to your program. A second concentration is optional. Requirements for the concentrations are listed below (p. 250). Certain concentrations require additional prerequisites. Please consult your academic advisor to ensure you have met these requirements.

## Business Cooperative Education Requirement

Complete two six-month co-op experiences.

## Business GPA Requirement

A minimum 2.000 GPA in business courses is required.

## Program Requirement

128 total semester hours required

| CONCENTRATION IN ACCOUNTING |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |



## Electives

| Complete three of the following: |  |
| :--- | :--- |
| ENTR 3520 | Impact Investing and Social Finance |
| or FINA 2720 | Sustainability in the Business Environment <br> Corporate Finance (if not selected as a <br> required course) |
| FINA 3301 | Investments (if not selected as a <br> required course) |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation |

## CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course <br> MGMT 4501 | Skills for Managerial Success |
| :--- | :--- | ---: |
| Electives |  |
| Complete three of the following: |  |


| CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS <br> Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration |  |

## Electives

Note: Only one non-MISM course may be used as an elective.

| Complete two of the following: |  |
| :--- | :--- |
| MISM 3305 | Information Resource Management |
| MISM 3404 | Data Communications |

## CONCENTRATION IN MARKETING

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

## $\begin{array}{lll}\text { CONCENTRATION IN SUPPLY CHAIN MANAGEMENT } \\ \text { Code } & \text { Title Hours }\end{array}$

## Required Courses

| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | :--- |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation | 4 |
|  | Management |  |

## Elective

Complete one of the following: 4

| SCHM 3308 | Supply Chain Analytics |
| :--- | :--- |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## BSIB/MSIM Admissions Requirements

Students are required to apply for admission to the BSIB/ MSIM program. The following are prerequisites for students entering the program:

INTB 3202
and INTB 3310

ACCT 1201
and ACCT 1202

ACCT 2301
and ACCT 2302

FINA 2201
and FINA 2202

Managing the International Assignment and Cultural Aspects of International Business
Financial Accounting and Reporting and Financial Accounting in a Global Context

Managerial Accounting and Managerial Accounting in a Global Context

## Financial Management

 and Financial Management in a Global ContextAt least one one semester (fall or spring) of study abroad,
which must include upper-level course work toward the business degree
Two six-month co-op placements (one completed overseas)

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Courses

| INTB 6260 | Advanced Topics in Global <br> Management and Strategy | 3 |
| :---: | :--- | ---: |
| or STRT 6200 | Strategic Decision Making in a Changing <br> Environment |  |
| FINA 6209 | Introduction to International |  |
|  | Accounting and Finance (or Finance <br> MGSC 6209 <br> or STRT 6210 | Business Statistics |
| Workforce Metrics and Analytics | 3 |  |

## MSIM Curriculum Elective

Complete two or three elective courses that fulfill the Master
of Science in International Management Curriculum. See your advisor for an approved list. Students should also consult their academic advisor for an individualized plan as courses may be subject to change.

## Minors

Students who wish to enter one of the minor programs listed below should complete the online minor form accessible via the D'AmoreMcKim School of Business Undergraduate Programs website. Students who complete all five courses successfully and have earned at least a C (2.000) average in them will be awarded the minor at graduation.

- Business Administration, Minor (p. 252)
- Emerging Markets, Minor (p. 252)
- Entrepreneurship, Minor (p. 253)
- Global Social Entrepreneurship, Minor (p. 253)
- Sustainable Business Practices, Minor (p. 254)


## Business Administration, Minor

The minor in business administration introduces nonbusiness students to the key functional areas in business, providing a broad overview of the business world. The minor is available to nonbusiness students only.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Accounting

ACCT 1209 Financial Accounting and Reporting

## Organizational Behavior

ORGB $3209 \quad$ Organizational Behavior

## Finance

FINA $2209 \quad$ Financial Management (ACCT 1209 is a prerequisite)

## Marketing

Note: It is recommended that students complete Financial Accounting and Reporting (ACCT 1209) prior to taking Introduction to Marketing (MKTG 2209):

## MKTG 2209 Introduction to Marketing

## Business Elective

Complete one of the following courses or, with the approval of the undergraduate dean's office, any business course for which the prerequisites have been met:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 2206 | Global Social Enterprise |
| ENTR 2301 | Innovation! |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| FINA 1209 | Personal Finance |
| FINA 2720 | Sustainability in the Business <br> Environment |
| INTB 1209 | International Business and Global <br> Social Responsibility |
| INTB 2501 | Competing to Win in Emerging Markets |

## GPA Requirement

2.000 GPA required in the minor

## Emerging Markets, Minor

The minor in emerging markets introduces students to the challenges and opportunities that face companies in countries that are rapidly developing into more developed world economies. Students have an opportunity to combine course work that explores the dynamics of conducting business and generating innovations in emerging markets with a summer field project on-site in an area of the world where markets are rapidly developing. This interdisciplinary minor is open to business and nonbusiness students.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Emerging Markets

## INTB 2501

Competing to Win in Emerging Markets

## Field Research

| INTB 3316 and INTB 3318 | Economic, Social, and Political Dimensions of Doing Business in Brazil and Field Research in Emerging Markets in Brazil | 8 |
| :---: | :---: | :---: |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| AFRS 1101 | Introduction to African Studies |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ASNS 1150 | East Asian Studies |  |
| CLTR 1500 or HIST 1500 | Modern Chinese History and Culture Modern Chinese History and Culture |  |
| CLTR 1505 | Introduction to Latin American Culture |  |
| COMM 2303 | Global and Intercultural Communication |  |
| HIST 2397 | Modern Africa |  |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |  |
| POLS 3405 | International Political Economy |  |
| POLS 3407 | International Organizations |  |
| POLS 3487 | Politics of Developing Nations |  |

## GPA Requirement

2.000 GPA required in the minor

## Entrepreneurship, Minor

The Center for Entrepreneurship Education is a university-wide resource that integrates entrepreneurship and innovation courses, entrepreneurial co-ops in early stage companies, venture incubation through the oncampus IDEA program, and venture launch by helping entrepreneurs raise startup funds from the local angel and venture capital community.

One of the flagship programs of the center is a minor in entrepreneurship. The minor introduces students to the challenges and opportunities associated with starting and growing their own business. Students are exposed to innovation, marketing, and business modeling skills and have an opportunity to develop prototypes for their new ideas. They will then work in interdisciplinary teams to develop business plans suitable for their ventures. Support is provided to help students advance their ventures through IDEA, the venture incubator. Students are also encouraged to participate in the nationally recognized Entrepreneurs Club.

The minor in entrepreneurship allows nonbusiness students to explore their major discipline through a completely different lens and to potentially launch a new venture. Business students should pursue a concentration or dual concentration in entrepreneurship and innovation.

For more information, contact the program coordinator, Professor Cheryl Mitteness, in 219 Hayden Hall, at 617.373.3728, or by email (c.mitteness@northeastern.edu). Also visit the program website (http:// www.northeastern.edu/entrepreneurship).

## Minor Requirements

4 Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## School of Business.

## Required Course

| Code | Title | Hours |
| :--- | :--- | ---: |
| ENTR 4501 | Business Planning for Technology <br> Ventures | 4 |
| or ENTR 4503 | Business Planning for Small and Medium <br> Enterprises |  |
| Electives |  |  |
| Code |  |  |
| A minimum of two courses must be ENTR courses. |  |  |
| Complete four of the following: |  |  |$\quad$ Hours

## GPA Requirement

2.000 GPA required in the minor

## Global Social Entrepreneurship, Minor

This five course (20 credit) Interdisciplinary Minor in Global Social Entrepreneurship (GSE) is administered by the D'Amore-McKim School of Business through its Entrepreneurship and Innovation Group (ENT). The D'Amore-McKim School of Business collaborates with the College of Social Sciences and Humanities (CSSH) for shared academic content through its international affairs/political sciences and human services programs.

The minor consists of three on-campus courses and one two-course Dialogue of Civilizations Program (Dialogue). The minor is open to business and non-business students. Several of the courses included in this minor may also apply to other programs or individual course requirements.

Because this minor is an interdisciplinary one, a student may apply only three courses from any one college toward completion of the minor. For example, after a student completes Global Social Enterprise
(ENTR 2206) (a D'Amore-McKim School of Business course) and a D'Amore-McKim School of Business Dialogue Program, then the remaining two courses must come from CSSH. If, alternatively, a student completes a qualified CSSH Dialogue, then he or she may thereafter take one or two elective courses from D'Amore-McKim School of Business but only one from CSSH.

This minor uniquely combines course work from two colleges with a summer field research experience. The minor introduces students to the ways in which the private sector (businesses and nonprofits) can help to build sustainable solutions to social problems on a global basis. Students study how to sustainably address challenging problems such as extreme poverty, inadequate education, and human rights abuses. Students in this minor also have the unique opportunity to engage in practical, real-world field research in the form of specially designed NU Dialogue of Civilizations programs, from providing business consulting services to "slum" entrepreneurs in South Africa to engaging with women microentrepreneurs in poor communities in India.

Finally, note that business students can pursue this minor or alternatively choose to pursue the ENT concentration with a track ("concentration track") in social entrepreneurship, which requires four ENTR courses in social entrepreneurship and does not require a Dialogue. Students may also choose to pursue both the minor and the ENT concentration.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: No more than three courses may be taken from any one college.

## Required Course

ENTR 2206
Global Social Enterprise

## Research Courses

Complete one of the following:

| ENTR 3306 |
| :--- | :--- |
| and ENTR 3308 | | Global Entrepreneurship |
| :--- |
| and Business Economic History of |
| South Africa |$|$| ENTR 3316 | Microfinance and Economic |
| :--- | :--- |
| and ENTR 3318 | Development in Latin America <br> and Business, Economics, and History <br> of Hispaniola and Latin America |
| ENTR 4512 | Social Entrepreneurship and <br> and ENTR 4514 |
| Sustainable Development in India <br> and Development Practice and Global <br> Citizenship in India |  |

HUSV 4945 Leadership and International Program
and HUSV 4866 Development
and Intercultural Studies through
Human Services

| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| :--- | :--- |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4506 | Advanced Studies in Social Enterprise |
| INTL 1101 | Globalization and International Affairs |
| INTL 3400 | International Conflict and Negotiation |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management |
| HUSV 3550 | Social Policy, Advocacy, and Activism |
| LPSC 2301 | Introduction to Law, Policy, and Society |
| LPSC 2302 | Global Human Rights: A Social and |
| POLS 3324 | Law and Society |
| POLS 3487 | Politics of Developing Nations |
| POLS 3406 | International Law |

## GPA Requirement

2.000 GPA required in the minor

## Sustainable Business Practices, Minor

Combining course work and a summer field project, the minor in sustainable business practices seeks to provide students with a deeper understanding of sustainability issues and the tools to address these issues in a business environment. This interdisciplinary minor is open to business and nonbusiness students.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: No more than three courses may be taken from any one college.

## Sustainability in Business

FINA 2720
Sustainability in the Business Environment

## Field Research

Complete one of the following:

| ENTR 3326 | Sustainability in the Latin American |
| :--- | :--- |
| and ENTR 3328 | Business Environment <br> and Field Research in Sustainable <br> Business |
| ENTR 3336 | Resource Management and Renewable <br> and ENTR 3338Energy in Iceland <br> and Field Research in Sustainable <br> Energy in Iceland |

ENTR 3326 Sustainability in the Latin American
and ENTR 3328 Business Environment and Field Research in Sustainable Business
ENTR 3336 Resource Management and Renewable
and ENTR 3338 Energy in Iceland
and Field Research in Sustainable
Energy in Iceland

## Electives

Complete two of the following:

| ANTH 2305 | Global Markets and Local Culture |
| :--- | :--- |
| ANTH 3120 | Consumer Cultures |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |

ENTR 3212 Innovation for Social Change

## Electives

| Complete two of the following: |  |
| :--- | :--- |
| CIVE 2334 | Environmental Engineering 1 |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics |
| ENVR 1101 | Environmental Science |
| ENVR 1112 | Environmental Geology |
| ENVR 1120 | Oceans and Coasts |
| ENVR 1200 | Dynamic Earth |


| ENVR 4515 | Sustainable Development |
| :--- | :--- |
| GE 1201 | Alternative Energy Technologies |
| ME 4680 | Energy Systems |
| PHIL 1180 | Environmental Ethics |
| PHYS 1132 | Energy, Environment, and Society |
| POLS 2395 | Environmental Politics and Policy |
| SOCL 1246 | Environment and Society |

## GPA Requirement

2.000 GPA required in the minor

## College of Computer and Information Science

Website (http://www.ccs.neu.edu/undergraduate)
Carla E. Brodley, PhD, Dean
Mark Erickson, MEd, Assistant Dean of Academic Advising and Employer Relations
Doreen L. Hodgkin, MEd, Associate Dean, Administration and Student Affairs

Karyn Rosen, MEd, Assistant Dean of Cooperative Education
Alan Mislove, PhD, Associate Professor, Associate Dean, and Director of Undergraduate Studies
Martin Schedlbauer, PhD, Director of Information Science Program, Clinical Professor

202 West Village H
617.373.2462
advising@ccs.neu.edu
Computing has transformed the way people work and live, and its applications are limitless. Today, an understanding of computing is critical in business, healthcare, science, digital art, and other areas of our information-driven society. Computing knowledge and computing technology also contribute to resolving major issues in an increasingly complex world.

The College of Computer and Information Science offers undergraduate programs that combine a strong foundation in computing with the opportunity to acquire a deep knowledge of another discipline in which computing plays a critical role. The college offers undergraduate degree programs in computer science ( $B S$ and $B A$ ) and information science (BS); combined majors with business administration, cognitive psychology, biology, mathematics, physics, environmental science, game development, interactive media, digital art, music technology, linguistics, communication, and journalism; and a combined major in computer science and information science. The BS in computer science emphasizes strong technical competence in computer science, mathematics, science, and electrical engineering. The BA in computer science combines computer science with a broad-based liberal arts education. The BS in information science integrates studies in computer science, behavioral science, business, and social science. The BS in computer science with concentration in cyber operations extends the regular BS in computer science by requiring a significant number of courses in security and in networks both wired and wireless. This program is one of the initial four programs selected in 2012 by the National Security Agency as a National Center of Academic Excellence in Cyber Operations Program.

## Academic Progression Standards

To progress to sophomore standing, students are required to earn:

- A minimum of 25 semester hours of credit
- A minimum overall and CS GPA of 1.800
- A grade of C or higher in First-Year Writing (ENGW 1111) or First-Year Writing for Multilingual Writers (ENGW 1102)

A deficit in any of these criteria after two semesters of enrollment will lead to student dismissal from CCIS and Northeastern.

## Additional requirements

- Students are permitted two attempts to earn a minimum grade of Cin the following courses:[QY Richard: Instead of bullets in the course lists, I think we should use another symbol. In last year's cat we used a dash]
- Discrete Structures (CS 1800)
- Fundamentals of Computer Science 1 (CS 2500)
- Fundamentals of Computer Science 2 (CS 2510)
- Logic and Computation (CS 2800)
- If a C - is not earned by the second attempt, a student will be dismissed from CCIS and Northeastern.
- If the following courses are required by the degree program, a minimum grade of C - is required:
- Calculus for Business and Economics (MATH 1231)
- Calculus and Differential Equations for Biology 1 (MATH 1251)
- Calculus and Differential Equations for Biology 2 (MATH 1252)
- Intensive Calculus for Engineers (MATH 1340)
- Calculus 1 for Science and Engineering (MATH 1341)
- Calculus 2 for Science and Engineering (MATH 1342)


## Maintaining good standing

To remain in good academic standing and progress after the first year, students are required to fulfill:

- A minimum of 12 SH in each full-term semester (fall or spring)
- A minimum overall GPA of 2.000
- A minimum GPA of 2.000 in all CS/IS courses
- A minimum GPA of 2.000 for business courses in the combined CS and business and IS and business majors (or the usiness portion of the combined major will be dropped)


## Program Length

The College of Computer and Information Science prides itself on flexibility and a very supportive advising staff. Depending upon the number of entry-level/transfer credits, the academic program, and student planning, it is possible to complete the program within four years with at least one experiential experience and usually with two such experiences.

## 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.

The Bachelor of Science in Computer Science with Concentration in Cyber Operations is one of the initial four programs selected in 2012 by the National Security Agency as a National Center of Academic Excellence in Cyber Operations Program.

## Programs

## Bachelor of Science in Computer Science (BSCS)

- Bachelor of Science in Computer Science (p. 257)
- Bachelor of Science in Computer Science with Concentration in Cyber Operations (p. 260)


## Bachelor of Arts in Computer Science (BACS)

-Bachelor of Arts in Computer Science (p. 262)

## Dual degree

- Bachelor of Science/Master of Science in Computer Science, BSCS/ MSCS (p. 264)


## Minor

- Computer Science (p. 266)


## Computer Science, BSCS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Major Requirements

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

[^4]A grade of C - or higher is required in computer science fundamental courses.

| CS 1800 | Discrete Structures | 4 |
| :--- | :--- | ---: |
| and CS 1801 | and Recitation for CS 1800 |  |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |
| and CS 2501 | and Lab for CS 2500 |  |
| CS 2510 | Fundamentals of Computer Science 2 | 5 |
| and CS 2511 | and Lab for CS 2510 |  |
| CS 2800 | Logic and Computation <br> and CS 2801 | and Lab for CS 2800 |

## Computer Science Required Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4400 | Programming Languages | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Senior Seminar
CS 4000 Senior Seminar 1

Computer Science Capstone
Complete one of the following: 4-5

| CS 4100 | Artificial Intelligence |
| :--- | :--- |
| CS 4300 | Computer Graphics |
| CS 4410 | Compilers |
| CS 4150 | Game Artificial Intelligence |
| CS 4550 | Web Development |
| CS 4650 | High Performance Computing <br> CS 4750 |
| Secure Wireless Ad Hoc Robots on |  |
| CS 4ission (SWARM) 1 |  |

## Additional Courses for BS

Mathematics Courses

| MATH 1341 | Calculus 1 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| :--- | :--- | ---: |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Computing and Social Issues | 4 |  |

PHIL 1145 Technology and Human Values

| SOCL 1280 | The Twenty-First-Century Workplace |  |
| :---: | :---: | :---: |
| SOCL 4528 | Computers and Society |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |
| Electrical Engineering |  |  |
| EECE 2160 and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Science Requirement |  |  |
| Complete two cours categories: | s for one of the following science | 10 |
| Biology |  |  |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |  |
| Then complete one of the following: |  |  |
| BIOL 1113 and BIOL 1114 | General Biology 2 and Lab for BIOL 1113 |  |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| Chemistry |  |  |
| CHEM 1211 <br> and CHEM 1212 <br> and CHEM 1213 | General Chemistry 1 and Lab for CHEM 1211 and Recitation for CHEM 1211 |  |
| CHEM 1214 <br> and CHEM 1215 <br> and CHEM 1216 | General Chemistry 2 and Lab for CHEM 1214 and Recitation for CHEM 1214 |  |
| Geology/Environmental Science (Option 1) |  |  |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 |  |
| ENVR 1202 <br> and ENVR 1203 | History of Earth and Life and Interpreting Earth History |  |
| Geology/Environmental Science (Option 2) |  |  |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 |  |
| Then complete one of the following: |  |  |
| ENVR 2310 and ENVR 2311 | Earth Materials and Lab for ENVR 2310 |  |
| ENVR 2340 and ENVR 2341 | Earth Landforms and Processes and Lab for ENVR 2340 |  |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |  |
| ENVR 4106 and ENVR 4107 | Coastal Processes and Lab for ENVR 4106 |  |
| ENVR 4500 and ENVR 4501 | Applied Hydrogeology and Lab for ENVR 4500 |  |
| ENVR 5244 and ENVR 5245 | Sedimentation and Lab for ENVR 5244 |  |
| Geology/Environmental Science (Option 3) |  |  |
| ENVR 1202 and ENVR 1203 | History of Earth and Life and Interpreting Earth History |  |
| ENVR 5242 and ENVR 5243 | Ancient Marine Life and Lab for ENVR 5242 |  |
| Physics |  |  |
| Complete one of the following sequences: |  |  |
| Sequence A |  |  |


| PHYS 1145 |  |
| :--- | :--- |
| and PHYS 1146 | Physics for Life Sciences 1 |
| and Lab for PHYS 1145 |  |
| PHYS 1147 | Physics for Life Sciences 2 <br> and PHYS 1148 <br> and Lab for PHYS 1147 |
| Sequence B |  |
| PHYS 1151 | Physics for Engineering 1 |
| and PHYS 1152 | and Lab for PHYS 1151 |
| and PHYS 1153 | and Interactive Learning Seminar for |
| PHYS 1151 |  |

## Computer Science English Requirement

College Writing
ENGW 1111 First-Year Writing 4

## Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Computer Science Credit Requirements

Complete 60 semester hours in the major. Acceptable courses for this requirement include all CS courses (except CS 5010) and IS 2000 and higher (except IS 4900).

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall



| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 CS 3800 | 4 Vacation | 0 Co-op | 0 |
| CS 4800 | 4 CS 3650 | 4 |  |  |
| MATH 1341 | 4 MATH 1342 | 4 |  |  |
| Elective | 4 <br> Science <br> elective with <br> lab <br> CS 1210 | 5 | 1 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CS 3700 | 4 MATH 2331 | 4 Co-op | 0 |
|  | MATH 3081 | 4 Elective | 4 |  |
|  | ENGW 3302 | 4 |  |  |
| Science <br> elective with <br> lab | 5 |  | 0 |  |


| Year 4 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | EECE 2160 | 3 | Elective | 4 Co-op | 0 |
|  |  | EECE 2161 | 1 | Elective | 4 |  |
|  |  | CS <br> undergradu <br> elective | 4 |  |  |  |
|  |  | CS undergradu elective | 4 |  |  |  |
|  |  | CS 4400 | 4 |  |  |  |
|  | 0 |  | 16 |  | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CS 4000 | 1 |
|  | CS 4500 | 4 |
|  | SOCL 4528 | 4 |
|  | Capstone | 4 |
|  | Elective | 4 |
|  | 0 | 17 |

[^5]Five Years, Three Co-ops in Spring/Summer 1
Year 1
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS } 2500 & 4 \text { CS } 2510 & 4 & \text { Vacation } & 0 \text { Vacation }\end{array}\right) 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 4800 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| CS 1210 | 1 | 0 | 0 | 0 |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3800 | 4 Co-op | 0 Co-op | 0 MATH 2331 | 4 |
| CS 3650 | 4 |  | Elective | 4 |
| MATH 1342 | 4 |  |  |  |
| Science <br> elective with <br> lab | 5 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3700 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MATH 3081 | 4 |  | Elective | 4 |
| ENGW 3302 | 4 |  |  |  |
| Science <br> elective with <br> lab | 5 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4400 | 4 CS 4000 | 1 |
| EECE 2160 | 3 CS 4500 | 4 |
| EECE 2161 | 1 SOCL 4528 | 4 |
| CS <br> undergraduat <br> elective | 4 Capstone | 4 |
| CS <br> undergraduate <br> elective | 4 Elective | 4 |
|  | 16 | 17 |

Total Hours: 136

## Computer Science with Concentration in Cyber Operations, BSCS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science/Cyber Operations Major Requirements

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses
A grade of C - or higher is required in computer science fundamental courses.

| CS 1800 | Discrete Structures <br> and CS 1801 | 4 |
| :--- | :--- | ---: |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| and CS 2501 | and Lab for CS 2500 | 5 |
| CS 2510 | Fundamentals of Computer Science 2 <br> and CS 2511 | 5 |
| CS 2800 | Logic and Computation |  |
| and CS 2801 | and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4400 | Programming Languages | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Computer Science Seminar |  |  |
| :--- | :--- | :--- |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |


| Computer Science Capstone |  |
| :--- | :--- |
| Complete one of the following: | $4-5$ |
| CS 4100 | Artificial Intelligence |
| CS 4300 | Computer Graphics |
| CS 4410 | Compilers |
| CS 4150 | Game Artificial Intelligence |
| CS 4550 | Web Development |
| CS 4650 | High Performance Computing |
| CS 4750 | Secure Wireless Ad Hoc Robots on <br> Mission (SWARM) 1 |


| CS 4760 | Secure Wireless Ad Hoc Robots on <br> Mission (SWARM) 2 |  |
| :---: | :--- | :--- |
| CS 4900 | Honors Senior Seminar |  |
| CS 4991 | Research |  |
| IS 4900 | Information Science Senior Project |  |

## Additional Courses for BS

Mathematics Courses

| MATH 1341 | Calculus 1 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| :--- | :--- | ---: |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Computing and Social Issues |  |  |
| Complete one of the following: |  |  |


| PHIL 1145 | Technology and Human Values |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 4528 | Computers and Society |
| SOCL 3485 | Environment, Technology, and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Electrical Engineering <br> EECE 2160 Embedded Design Enabling Robotics 4

and EECE 2161 and Lab for EECE 2160
Science Requirement
Complete two courses for one of the following sciences: 10
Biology
BIOL 1111 General Biology 1
and BIOL 1112 and Lab for BIOL 1111
Then complete one of the following:
BIOL 1113 General Biology 2
and BIOL 1114 and Lab for BIOL 1113
BIOL 2301
and BIOL 2302
Genetics and Molecular Biology
and Lab for BIOL 2301

## Chemistry

CHEM 1211 General Chemistry 1
and CHEM 1212 and Lab for CHEM 1211
and CHEM 1213 and Recitation for CHEM 1211
CHEM 1214 General Chemistry 2
and CHEM 1215 and Lab for CHEM 1214
and CHEM 1216 and Recitation for CHEM 1214
Geology/Environmental Science (Option 1)
ENVR 1200 Dynamic Earth
and ENVR 1201 and Lab for ENVR 1200
ENVR 1202 History of Earth and Life
and ENVR 1203 and Interpreting Earth History

| Geology/Environmental Science (Option 2) |  |
| :---: | :---: |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 |
| Then complete one of the following: |  |
| ENVR 2310 and ENVR 2311 | Earth Materials and Lab for ENVR 2310 |
| ENVR 2340 and ENVR 2341 | Earth Landforms and Processes and Lab for ENVR 2340 |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |
| ENVR 4106 and ENVR 4107 | Coastal Processes and Lab for ENVR 4106 |
| ENVR 4500 and ENVR 4501 | Applied Hydrogeology and Lab for ENVR 4500 |
| ENVR 5244 and ENVR 5245 | Sedimentation and Lab for ENVR 5244 |
| Geology/Environmental Science (Option 3) |  |
| ENVR 1202 and ENVR 1203 | History of Earth and Life and Interpreting Earth History |
| ENVR 5242 and ENVR 5243 | Ancient Marine Life and Lab for ENVR 5242 |
| Physics |  |
| Complete one of the following sequences: |  |
| Sequence A |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |
| PHYS 1147 <br> and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 |
| Sequence B |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for PHYS 1155 |
| Sequence C |  |
| PHYS 1161 <br> and PHYS 1162 <br> and PHYS 1163 | Physics 1 <br> and Lab for PHYS 1161 <br> and Recitation for PHYS 1161 |
| PHYS 1165 <br> and PHYS 1166 <br> and PHYS 1167 | Physics 2 <br> and Lab for PHYS 1165 <br> and Recitation for PHYS 1165 |

## Computer Science English Requirement <br> College Writing <br> ENGW 1111 First-Year Writing 4

| Advanced Writing in the Disciplines |  |
| :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives <br> Complete five general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Computer Science Credit Requirement

Complete 72 semester hours in the major. Acceptable courses for this requirement include all CS courses (except CS 5010) and IA 5010.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |
| CS 2501 | 1 Elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3650 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3700 | 4 Co-op | 0 Co-op | 0 MATH 2331 | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| MATH 1342 | 4 |  |  |  |
| Science <br> elective with <br> lab | 5 |  |  |  |
|  | 17 | 0 | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CS 3800 | 4 Co-op | 0 Co-op | 0 MATH 3081 | 4 |
| CS 4400 | 4 |  | ENGW 3302 | 4 |



Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | :---: |
| CS 4740 | 4 CS 4000 | 1 |
| SOCL 4528 | 4 CS 4500 | 4 |
| IA 5010 | 4 CS 5770 | 4 |
| EECE 2160 | 3 CS 6710 | 4 |
|  | Capstone | 4 |
|  | 15 | 17 |

Total Hours: 135

## Computer Science, BACS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All BA students are required to complete the BA requirements (p. 37).

## Computer Science Major Requirements

## Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of C - or higher is required in computer science fundamental courses. |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 3800 | Theory of Computation | 4 |


| CS 4500 | Software Development | 4 |
| :---: | :---: | :---: |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\begin{aligned} & \text { CS } 4000 \\ & \text { or THTR } 1170 \end{aligned}$ | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Capstone |  |  |
| Complete one of the | following: | 4-5 |
| CS 4100 | Artificial Intelligence |  |
| CS 4150 | Game Artificial Intelligence |  |
| CS 4300 | Computer Graphics |  |
| CS 4410 | Compilers |  |
| CS 4550 | Web Development |  |
| CS 4650 | High Performance Computing |  |
| CS 4750 | Secure Wireless Ad Hoc Robots on Mission (SWARM) 1 |  |
| CS 4760 | Secure Wireless Ad Hoc Robots on Mission (SWARM) 2 |  |
| CS 4900 | Honors Senior Seminar |  |
| CS 4991 | Research |  |
| IS 4900 | Information Science Senior Project |  |
| IS 4991 | Research |  |
| Additional Courses for BA |  |  |
| Mathematics Courses |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering (a grade of C - or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering (a grade of C - or higher is required) | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Science Courses |  |  |
| Complete one course from one of the following groups: |  | 5 |
| Biology |  |  |
| BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |  |
| Chemistry |  |  |
| CHEM 1101 and CHEM 1102 and CHEM 1103 | General Chemistry for Health Sciences and Lab for CHEM 1101 and Recitation for CHEM 1101 |  |
| CHEM 1151 <br> and CHEM 1152 <br> and CHEM 1153 | General Chemistry for Engineers and Lab for CHEM 1151 and Recitation for CHEM 1151 |  |
| Geology |  |  |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 |  |
| ENVR 1202 and ENVR 1203 | History of Earth and Life and Interpreting Earth History |  |
| Physics |  |  |
| PHYS 1145 <br> and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |  |
| Computing and Social Issues |  |  |


| Complete one of the following: |  |
| :--- | :--- |
| PHIL 1145 | Technology and Human Values |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Upper-Division Elective

Computer Science or Mathematics Upper-Division Elective
Complete an elective from one of the following options:
4
CS 2500 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

| MATH 2321 | Calculus 3 for Science and Engineering |
| :--- | :--- |
| MATH 2331 | Linear Algebra |

MATH 3000 to MATH 4581 but not MATH 4025

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Computer Science English Requirement

College Writing
ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete ten general electives.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

134 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |


| CS 2501 | 1 Foreign <br> language <br> course | 4 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Foreign <br> language <br> course | 4 |  | 0 | 0 |

Year 2
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS } 3500 & 4 \text { CS } 3650 & 4 & \text { Vacation } & 0 \text { Co-op }\end{array}\right) 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3700 | 4 Elective | 4 Co-op | 0 |
|  | MATH 3081 | 4 Elective | 4 |  |
|  | ENGW 3302 | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 SOCL 4528 | 4 Elective | 4 Co-op | 0 |
|  | Science <br> elective with <br> lab | 5 Elective | 4 |  |
|  | CS or MATH <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CS 4000 | 1 |
|  | CS 4500 | 4 |
|  | Capstone | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 17 |

Total Hours: 135

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |


| CS 2501 | 1 Foreign language course | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Foreign language course | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 4800 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| Foreign language course | 4 |  |  |  |
| 17 |  | 0 | 0 | 0 |

where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Computer Science Major Requirements

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required in Computer Science
Fundamental courses.

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |

## Computer Science Senior Seminar

| CS 4000 | Senior Seminar | 1 |
| :---: | :--- | :--- |
| or THTR 1170 | The Eloquent Presenter |  |

Computer Science Capstone
Complete one of the following CCIS capstones: 4-5

| CS 4100 | Artificial Intelligence |
| :--- | :--- |
| CS 4300 | Computer Graphics |
| CS 4410 | Compilers |
| CS 4150 | Game Artificial Intelligence |
| CS 4550 | Web Development |
| CS 4900 | Honors Senior Seminar |
| CS 4991 | Research |
| IS 4900 | Information Science Senior Project |
| IS 4991 | Research |

## Computer Science Upper-Division Elective

With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as an upper-division elective.
Complete one course in the following ranges: 4 CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
$\left.\begin{array}{lll}\hline \text { Additional Courses For BS } \\ \text { Mathematics Courses }\end{array} \quad \begin{array}{l}\text { Calculus 1 for Science and Engineering } \\ \text { MATH 1341 }\end{array} \quad \begin{array}{l}\text { (a grade of C- or higher is required) }\end{array}\right]$

ENVR 4500 Applied Hydrogeology
and ENVR 4501 and Lab for ENVR 4500
ENVR 5244 Sedimentation
and ENVR 5245 and Lab for ENVR 5244
Geology/Environmental Science (Option 3)
ENVR 1202 History of Earth and Life
and ENVR 1203 and Interpreting Earth History
ENVR 5242 Ancient Marine Life
and ENVR 5243 and Lab for ENVR 5242

## Physics

Complete one of the following sequences:
Sequence A:

| PHYS 1145 | Physics for Life Sciences 1 |
| :--- | :--- |
| and PHYS 1146 | and Lab for PHYS 1145 |
| PHYS 1147 | Physics for Life Sciences 2 |
| and PHYS 1148 | and Lab for PHYS 1147 |

Sequence B:
PHYS 1151 Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

PHYS 1155 Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155
Sequence C:
PHYS 1161
and PHYS 1162
and PHYS 1163
PHYS 1165
and PHYS 1166
and PHYS 1167

## Physics 1

and Lab for PHYS 1161
and Recitation for PHYS 1161
Physics 2
and Lab for PHYS 1165
and Recitation for PHYS 1165

## Computer Science English Requirement

## College Writing

ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |

## Required General Electives

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Computer Science Credit Requirements

Complete 60 semester hours in the major. Acceptable courses for this requirement include all CS courses (except CS 5010) and IS 2000 and higher (except IS 4900). At least 32 SH in Computer must be taken at the Master's level or higher.

## Master's-Level Courses to be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Master's-Level Computer Science Core Courses

| CS 5400 | Principles of Programming Language | 4 |
| :--- | :--- | :--- |
| CS 5600 | Computer Systems | 4 |
| CS 5800 | Algorithms | 4 |

Master's-Level Computer Science Elective
Complete one master's-level course to count toward 4 undergraduate requirements. Master's-level computer science electives may be chosen from either master's courses or from those PhD courses for which the student is qualified. Note: CS 5010 may not be taken as a master's-level computer science elective because it duplicates material taught in the undergraduate curriculum.

## Entrance Requirements

- Evaluation for entrance may be requested after a minimum of 3 semesters of CCIS coursework.
- The GPA in CCIS courses must be at least 3.25.
- The overall GPA must be at least 3.25.
- Requests for entrance to the BS/MS can be via email to advising@ccs.neu.edu. If requesting via email, include your name, ID, and which BS/MS program you wish to enter.


## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required for the bachelor's degree.
Plan of Study
Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |
| CS 2501 | 1 Elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3800 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |



## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 5800 | 4 Co-op | 0 Co-op | MATH 2331 | 4 |
| MATH 1342 | 4 |  | Elective | 4 |
| Science <br> elective with <br> lab | 5 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 5600 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MATH 3081 | 4 |  | Elective | 4 |
| ENGW 3302 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 5

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3700 | 4 CS 4000 | 1 Vacation | 0 Vacation | 0 |
| CS 5400 | 4 CS 4500 | 4 |  |  |
| SOCL 4528 | 4 Capstone | 4 |  |  |
| EECE 2160 | 3 CS Graduate <br> Elective | 4 |  | 0 |
| EECE 2161 | 1 Elective | 4 | 0 | 0 |

Year 6

| Fall | Hours Spring | Hours |  |
| :---: | :---: | :---: | :---: |
| CS Graduate Elective | 4 CS Graduate Elective | 4 |  |
| CS Graduate <br> Elective | 4 CS Graduate Elective | 4 |  |
|  | 8 | 8 |  |
| Total Hours: 152 |  |  |  |
| Computer Science, Minor |  |  |  |

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

A grade of C - or higher is required in each course:

| CS 2500 | Fundamentals of Computer Science 1 |  |
| :--- | :--- | :--- |
| and CS 2501 | and Lab for CS 2500 | 5 |
| CS 2510 | Fundamentals of Computer Science 2 | 5 |
| and CS 2511 | and Lab for CS 2510 |  |

## Computer Science Electives

Complete three courses from the following:

IS 4200 Information Retrieval

| IS 4300 | Human Computer Interaction |
| :--- | :--- |
| IS 4500 | Software Quality Assurance |
| IS 4600 | Software Project Management |
| IS 4700 | Social Information Systems |
| One Course from CCIS Meaningful Minors list (see below) |  |

## CCIS Meaningful Minors

The concept of "CCIS Meaningful Minors" allows students the chance to personalize a computer or information science minor to meet individual academic needs and interests. Students may take one elective related to computation or information from a pre-approved list of courses offered across the university rather than from within CCIS. This allows students to integrate the minor with a course in their own major or with a course in another area of interest. Students may of course choose to take all electives in the minor within CCIS if they wish.

Bouve Health Sciences:

| HINF 5101 | Introduction to Health Informatics and Health Information Systems |
| :---: | :---: |
| HINF 5102 | Data Management in Healthcare |
| HINF 5300 | Personal Health Interface Design and Development |
| HINF 5301 | Personal Health Technologies: Field Deployment and System Evaluation |
| Arts, Media, and Design: |  |
| ARTD 2200 | Interactive Narrative |
| ARTD 2360 | Photo Basics |
| ARTD 2370 | Animation Basics |
| ARTD 2380 | Video Basics |
| ARTG 2260 | Programming Basics |
| ARTG 2400 | Interaction Design 1: Responsive |
| ARTG 3250 | Physical Computing |
| ARTG 3352 | Interaction Design Basics |
| ARTG 3451 | Information Design 1 |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTG 4552 | Information Design 2 |
| ARTG 5100 | Information Design Studio 1-Principles |
| ARTG 5110 | Information Design History |
| ARTG 5120 | Information Design Research Methods |
| COMM 2105 | Social Networks |
| GAME 4355 | Game Scripting |
| JRNL 3610 | Digital Storytelling and Social Media |
| JRNL 3615 | Advanced Digital Storytelling |
| JRNL 5214 | The Online Newsroom Experience |
| MSCR 2500 | Digital Media Research |
| MUST 1220 | Introduction to Music Technology |
| MUST 3421 | Digital Audio Processing |
| Computer and Information Science: |  |
| CS 1100 | Computer Science and Its Applications |
| CS 1800 | Discrete Structures |
| IS 1500 | Introduction to Web Development |
| Engineering: |  |
| BIOE 2365 | Bioengineering Measurement, Experimentation, and Statistics |
| EECE 2160 | Embedded Design Enabling Robotics |


| EECE 2322 | Fundamentals of Digital Design and Computer Organization |
| :---: | :---: |
| EECE 3324 | Computer Architecture and Organization |
| EECE 4542 | Advanced Engineering Algorithms |
| EECE 5639 | Computer Vision |
| EECE 5640 | High-Performance Computing |
| EECE 5644 | Introduction to Machine Learning and Pattern Recognition |
| IE 4615 | Expert Systems and Neural Networks |
| Science: |  |
| BIOL 2301 | Genetics and Molecular Biology |
| BIOL 3405 | Neurobiology |
| BIOL 5587 | Comparative Neurobiology |
| BINF 6200 | Bioinformatics Programming |
| BINF 6308 | Bioinformatics Computational Methods 1 |
| BINF 6309 | Bioinformatics Computational Methods 2 |
| CHEM 5638 | Molecular Modeling |
| ENVR 3300 | Geographic Information Systems |
| ENVR 3302 | Introduction to Remote Sensing |
| ENVR 4563 | Advanced Spatial Analysis |
| LING 3450 | Syntax |
| LING 3452 | Semantics |
| MATH 1260 | Math Fundamentals for Games |
| MATH 2250 | Programming Skills for Mathematics |
| MATH 2331 | Linear Algebra |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering |
| MATH 3530 | Numerical Analysis |
| MATH 4535 | Mathematical Topics in Computer Vision |
| MATH 4606 | Mathematical and Computational Methods for Physics |
| PHYS 1130 | Computing, Data, and Science |
| PHYS 4606 | Mathematical and Computational Methods for Physics |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

Social Science, and Humanities:

| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| :--- | :--- |
| PPUA 6302 | Information Design and Visual <br> Analytics |
| ECON 1250 | Game Theory in the Social Sciences |
| ECON 3560 | Applied Econometrics |
| ECON 4653 | Mathematics for Economics |
| ENGL 3340 | Technologies of Text |
| PHIL 1105 | Science and Pseudoscience |
| PHIL 1114 | Reason, Risk, and Evidence |
| PHIL 1115 | Introduction to Logic |
| PHIL 1145 | Technology and Human Values |


| PHIL 1215 | Symbolic Logic |
| :---: | :---: |
| PHIL 2001 | Ethics and Evolutionary Games |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4520 | Philosophy of Logic |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| D'Amore-McKim School of Business: |  |
| ACCT 3403 | Accounting Information Systems |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 4501 | Business Planning for Technology Ventures |
| FINA 4608 | Advanced Financial Strategy |
| MISM 2301 | Management Information Systems |
| MISM 2301 | Management Information Systems |
| MISM 3305 | Information Resource Management |
| MISM 3404 | Data Communications |
| MKTG 3401 | Marketing Research |
| MKTG 3501 | Marketing Analytics |
| MKTG 4508 | Digital Marketing |
| Staticstics Courses: |  |
| CRIM 3700 | Criminal Justice Statistics |
| ECON 2350 | Statistics |
| ECON 5105 | Math and Statistics for Economists |
| ENVR 2500 | Biostatistics |
| IE 3412 | Engineering Probability and Statistics |
| INSH 2104 | Statistics in the Social and Political World |
| MATH 2280 | Statistics and Software |
| MATH 2285 | Introduction to Multisample Statistics |
| MATH 3081 | Probability and Statistics |
| MATH 4581 | Statistics and Stochastic Processes |
| MATH 5104 | Basics and Probability and Statistics |
| MATH 5105 | Basics of Statistics and Stochastic Processes |
| ME 2315 | Statistical and Economical Analyses in Engineering |
| MGSC 2301 | Business Statistics |
| PHMD 3450 | Research Methodology and Biostatistics |
| PHTH 2210 | Foundations of Biostatistics |
| PPUA 6301 | Introduction to Computational Statistics |
| POLS 2400 | Quantitative Techniques |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |

## Credit/GPA Requirement

20 semester hours required
2.000 GPA required in the minor

## Information Science

Unlocking the full potential 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, development, management, maintenance, and evaluation of large-scale information technology systems. Elective courses cover topics such as software project management, text/ hypertext retrieval and data mining, social information systems, health informatics, ubiquitous computing, artificial intelligence, information security, and e-commerce.

## Programs

## Bachelor of Science in Information Science (BSIS)

- Bachelor of Science in Information Science (p. 268)


## Minor

- Information Science (p. 270)


## Information Science, BSIS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Common Computer and Information Science Curriculum
Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of C - is required: |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computing and Social Issues |  |  |
| Complete one of | following: | 4 |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |

## Common Information Science Curriculum

Information Science Foundations

| CS 3200 | Database Design | 4 |
| :--- | :--- | :--- |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and | 4 |
|  | Development |  |


| Human Computer Interaction |  |  |
| :--- | :--- | :--- |
| IS 4300 | Human Computer Interaction | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |

Research and Data Analysis

| PSYC 2320 | Statistics in Psychological Research | 4 |
| :---: | :--- | :---: |
| $\quad$ or ECON 2350 | Statistics |  |
| IS 4800 | Empirical Research Methods | 4 |
| IS 4900 | Information Science Senior Project | 5 |

## Information Science Concentrations and Electives

Complete one of the following concentrations:
Concentrations
Concentration in Information Systems Management
Complete three of the following:

| IS 4500 | Software Quality Assurance |
| :--- | :--- |
| IS 4600 | Software Project Management |
| CS 4500 | Software Development |
| CS 4550 | Web Development |
| MISM 4501 | Business Systems Integration |


| ORGB 3201 or ORGB 3209 | Organizational Behavior Organizational Behavior |  |
| :---: | :---: | :---: |
| Concentration in Human Computer Interaction |  |  |
| Complete three of the | following: | 12 |
| PSYC 3466 | Cognition |  |
| CS 4100 | Artificial Intelligence |  |
| CS 4500 | Software Development |  |
| CS 4520 | Mobile Application Development |  |
| CS 4550 | Web Development |  |
| CS 6120 | Natural Language Processing |  |
| Concentration in Research and Data Analysis |  |  |
| Complete three of t | following: | 12 |
| IS 4200 | Information Retrieval |  |
| IS 4700 | Social Information Systems |  |
| CS 4100 | Artificial Intelligence |  |
| CS 4500 | Software Development |  |
| CS 6120 | Natural Language Processing |  |
| Computer Science or Information Science Elective |  |  |
| Complete one CS or from the following list | S elective that is not already required | 4 |
| CS 2500 to CS 5999 but not CS 5010 |  |  |
| IS 2000 to IS 5999 |  |  |

## Computer Science English Requirement

## College Writing

ENGW 1111 First-Year Writing 4
Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical |
| ---: | :--- |
| or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete nine general electives

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses
Information Science Major Credit Requirement
Complete 73 semester hours in CS and IS for the major.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |
| CS 2501 | 1 ECON 2350 | 4 |  | 0 |
| ENGW 1111 | 4 Elective | 4 |  |  |
| PSYC 1101 | 4 |  | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| IS 2000 | 4 IS 3500 | 4 | Vacation | 0 Co-op |$\quad 0$

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3302 | 4 Elective | 4 Co-op | 0 |
|  | SOCL 4528 | 4 Elective | 4 |  |
| IS <br> concentration <br> elective | 4 |  |  |  |
|  | Elective | 4 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 | 5 |
|  | IS | 4 |
|  | concentration <br> elective |  |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 17 |  |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$


| CS 1210 | 1 |  |  |  |
| :--- | ---: | ---: | :--- | :--- |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| IS 3500 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| IS 4300 | 4 |  | Elective | 4 |
| CS 4800 | 4 |  |  |  |
| CS 3650 | 4 |  | 0 | 8 |
|  | 16 | 0 |  |  |

Year 4 Hours Spring Hours Summer 1 Hours Summer 2 Hours

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 3700 | 4 |  | Elective | 4 |
| IS | 4 |  |  |  |
| concentration <br> elective |  |  |  |  |


| Elective | 4 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ENGW 3302 | 4 IS 4900 | 5 |
| SOCL 4528 | 4 IS concentration elective | 4 |
| IS concentration elective | 4 IS concentration elective | 4 |
| Elective | 4 Elective | 4 |
| 16 |  | 17 |

Total Hours: 134

## Information Science, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| CS 2500 | Fundamentals of Computer Science 1 |  |
| :--- | :--- | ---: |
| and CS 2501 | and Lab for CS 2500 (A grade of C- or <br> higher is required) | 5 |
| CS 2510 | Fundamentals of Computer Science 2 <br> and Lab for CS 2510 (A grade of C- or <br> higher is required ) | 5 |
| IS 2000 | Principles of Information Science | 4 |

## Information Science Electives

Complete two from the following:
IS 2000 to IS 4989 Database Design
CS 3200 CCIS Meaningful Minors (see below)
One course from CIS Meaningful Minors
CCIS
The concept of "CCIS Meaningful Minors" allows students the chance to
personalize a computer or information science minor to meet individual
academic needs and interests. Students may take one elective related to computation or information from a pre-approved list of courses offered across the university rather than from within CCIS. This allows students to integrate the minor with a course in their own major or with a course in another area of interest. Students may of course choose to take all electives in the minor within CCIS if they wish.

Bouve Health Sciences:

| HINF 5101 | Introduction to Health Informatics and <br> Health Information Systems |
| :--- | :--- |
| HINF 5102 | Data Management in Healthcare |
| HINF 5300 | Personal Health Interface Design and <br> Development |
| HINF 5301 | Personal Health Technologies: Field |

Deployment and System Evaluation
Arts, Media, and Design:

| ARTD 2200 | Interactive Narrative |
| :--- | :--- |
| ARTD 2360 | Photo Basics |
| ARTD 2370 | Animation Basics |
| ARTD 2380 | Video Basics |
| ARTG 2260 | Programming Basics |
| ARTG 2400 | Interaction Design 1: Responsive |
| ARTG 3250 | Physical Computing |
| ARTG 3352 | Interaction Design Basics |
| ARTG 3451 | Information Design 1 |
| ARTG 3700 | Interaction Design 2: Mobile |
| ARTG 4552 | Information Design 2 |
| ARTG 5100 | Information Design Studio 1-Principles |
| ARTG 5110 | Information Design History |
| ARTG 5120 | Information Design Research Methods |
| COMM 2105 | Social Networks |
| GAME 4355 | Game Scripting |
| JRNL 3610 | Digital Storytelling and Social Media |
| JRNL 3615 | Advanced Digital Storytelling |
| JRNL 5214 | The Online Newsroom Experience |
| MSCR 2500 | Digital Media Research |
| MUST 1220 | Introduction to Music Technology |
| MUST 3421 | Digital Audio Processing |

Computer and Information Science:

| CS 1100 | Computer Science and Its Applications |
| :---: | :---: |
| CS 1800 | Discrete Structures |
| IS 1500 | Introduction to Web Development |
| Engineering: |  |
| BIOE 2365 | Bioengineering Measurement, Experimentation, and Statistics |
| EECE 2160 | Embedded Design Enabling Robotics |
| EECE 2322 | Fundamentals of Digital Design and Computer Organization |
| EECE 3324 | Computer Architecture and Organization |
| EECE 4542 | Advanced Engineering Algorithms |
| EECE 5639 | Computer Vision |
| EECE 5640 | High-Performance Computing |
| EECE 5644 | Introduction to Machine Learning and Pattern Recognition |
| IE 4615 | Expert Systems and Neural Networks |

Science:

| BIOL 2301 | Genetics and Molecular Biology |
| :---: | :---: |
| BIOL 3405 | Neurobiology |
| BIOL 5587 | Comparative Neurobiology |
| BINF 6200 | Bioinformatics Programming |
| BINF 6308 | Bioinformatics Computational Methods 1 |
| BINF 6309 | Bioinformatics Computational Methods 2 |
| CHEM 5638 | Molecular Modeling |
| ENVR 3300 | Geographic Information Systems |
| ENVR 3302 | Introduction to Remote Sensing |
| ENVR 4563 | Advanced Spatial Analysis |
| LING 3450 | Syntax |
| LING 3452 | Semantics |
| MATH 1260 | Math Fundamentals for Games |
| MATH 2250 | Programming Skills for Mathematics |
| MATH 2331 | Linear Algebra |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering |
| MATH 3530 | Numerical Analysis |
| MATH 4535 | Mathematical Topics in Computer Vision |
| MATH 4606 | Mathematical and Computational Methods for Physics |
| PHYS 1130 | Computing, Data, and Science |
| PHYS 4606 | Mathematical and Computational Methods for Physics |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

Social Science and Humanities:

| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| :--- | :--- |
| ECON 1250 | Game Theory in the Social Sciences |
| ECON 3560 | Applied Econometrics |
| ECON 4653 | Mathematics for Economics |
| ENGL 3340 | Technologies of Text |
| PHIL 1105 | Science and Pseudoscience |
| PHIL 1114 | Reason, Risk, and Evidence |
| PHIL 1115 | Introduction to Logic |
| PHIL 1145 | Technology and Human Values |
| PHIL 1215 | Symbolic Logic |
| PHIL 2001 | Ethics and Evolutionary Games |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4520 | Philosophy of Logic |
| PPUA 6302 | Information Design and Visual |
| SOCL 3485 | Analytics |
| SOCL 4528 | Computers and Society |
| D'Amore-McKim School of Business: |  |
| ACCT 3403 | Accounting Information Systems |



## GPA Requirement

20 semester hours required

### 2.000 GPA required in the minor

## Data Science

The BS in data science studies the collection, manipulation, storage, retrieval, and computational analysis of data in its various forms, including numeric, textual, image, and video data from small to large volumes. The program combines computer science, information science, mathematics, statistics, and probability theory into an integrated curriculum that prepares students for careers or graduate studies in big data analysis, data science, and data analytics. The course work covers exploratory data analysis, data manipulation in a variety of programming languages, large-scale data storage, predictive analytics, machine learning, data mining, and information visualization and presentation. Data science has emerged as a discipline due to the confluence of two major events:

1. The ability to collect, store, prune, process, and transmit large amounts of data in the cloud.
2. The convergence of programming, statistics, artificial intelligence, and visualization as complementary tools for the analysis and understanding of data.

## Programs

- Data Science, BS (p. 272)


## Data Science, BS

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Major Requirements

## Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Foundations Courses |  |  |
| A grade of C - or higher is required in CS 2500, CS 2510, and CS 1800: |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3520 | Programming in C++ | 4 |
| CS 4000 | Senior Seminar | 1 |
| Information Science Foundations |  |  |
| IS 2000 | Principles of Information Science | 4 |
| CS 3200 | Database Design | 4 |

Mathematics and Statistics Foundations

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :---: | :---: |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| Complete one of the following: | 4 |  |


| ECON 2350 | Statistics |
| :--- | :--- |
| ENVR 2500 | Biostatistics |
| MATH 3081 | Probability and Statistics |
| PSYC 2320 | Statistics in Psychological Research |

## Data Science Foundations

| DS 4100 | Data Collection, Integration, and | 4 |
| :--- | :--- | :--- |
| Analysis |  |  |


| DS 4200 | Information Presentation and | 4 |
| :--- | :--- | ---: |
|  | Visualization |  |
| DS 4300 | Large-Scale Information Storage and | 4 |
|  | Retrieval |  |


| EECE 5642 | Data Visualization |
| :---: | :---: |
| EECE 5644 | Introduction to Machine Learning and Pattern Recognition |
| FINA 4608 | Advanced Financial Strategy |
| GSND 5110 | Game Design and Analysis |
| GSND 6350 | Game Analytics |
| HINF 5101 | Introduction to Health Informatics and Health Information Systems |
| HINF 5102 | Data Management in Healthcare |
| HINF 5300 | Personal Health Interface Design and Development |
| HINF 5301 | Personal Health Technologies: Field Deployment and System Evaluation |
| IA 5010 | Foundations of Information Assurance |
| IA 5050 | Data Mining in Cyberspace |
| IA 5200 | Security Risk Management and Assessment |
| IE 4615 | Expert Systems and Neural Networks |
| IE 5640 | Data Mining for Engineering Applications |
| ECON 2350 | Statistics |
| ECON 3560 | Applied Econometrics |
| ENVR 2500 | Biostatistics |
| MATH 2331 | Linear Algebra |
| MATH 3081 | Probability and Statistics |
| MATH 4581 | Statistics and Stochastic Processes |
| MISM 3305 | Information Resource Management |
| MISM 3403 | Data Management in the Enterprise |
| MKTG 3401 | Marketing Research |
| MKTG 3501 | Marketing Analytics |
| PPUA 6301 | Introduction to Computational Statistics |
| PSYC 2320 | Statistics in Psychological Research |
| The statistics course options under Mathematics and Statistics Foundations are also listed here as Data-Science-Related Electives. A student is permitted to take at most one additional statistics course to see statistics from the perspective of a different department. |  |

## Computer Science English Requirement

## College Writing

ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and DS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
$\left.\begin{array}{lcccc}\text { Year 1 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 2500 } & 4 \text { CS 2510 } & 4 & \text { Vacation } & \text { Vacation }\end{array}\right]$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| CS 3200 | 4 CS 1210 | 1 Vacation | Co-op |  |
| CS 3500 | 4 CS 3520 | 4 |  |  |
| DS 4100 | 4 DS 4200 | 4 |  |  |
| Statistics | 4 DS 4300 | 4 |  |  |
|  | Elective | 4 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | DS 4400 | 4 ENGW 3302 | 4 Co-op |  |
|  | DS-related <br> elective | 4 Elective | 4 |  |
| DS-related <br> elective | 4 |  |  |  |
| Elective | 4 | 8 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | DS 4420 | 4 Elective | 4 Co-op |  |
|  | DS-related <br> elective | 4 Elective | 4 |  |
|  | DS-related <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | CS 4000 | 1 |
|  | DS 4900 | 4 |


| DS-related <br> elective | 4 |
| :--- | :---: | :---: |
| DS-related <br> elective | 4 |
| Elective | 4 |
| 0 | 17 |

Total Hours: 133

## Computer and Information Science Combined Majors

The college offers combined majors with business administration, cognitive psychology, biology, mathematics, physics, environmental science, game development, interactive media, digital art, linguistics, communications, music composition and technology, and journalism, as well as a combined major in computer science and information science. Each of the combined majors offers the opportunity for intense study in two disciplines with appropriate breadth in the liberal arts. Students take nine to thirteen courses in each discipline (or a related discipline) and at least one integrative course that binds the disciplines together. These programs offer an excellent educational opportunity for the ambitious student.

## Programs

## Bachelor of Science (BS)

- Computer Science and Information Science (p. 275)
- Computer Science and Biology (p. 279)
- Computer Science and Business Administration (p. 281)
- Computer Science and Cognitive Psychology (p. 285)
- Computer Science and Communication Studies (p. 288)
- Computer Science and Criminal Justice (p. 290)
- Computer Science and Design (http://catalog.northeastern.edu/ undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-design-bs)
- Computer Science and Digital Art (p. 293)
- Computer Science and English (p. 295)
- Computer Science and Environmental Science (p. 298)
- Computer Science and Game Development (p. 300)
- Computer Science and History (p. 302)
- Computer Science and Interactive Media (p. 306)
- Computer Science and Journalism (p. 309)
- Computer Science and Linguistics (p. 310)
- Computer Science and Mathematics (p. 312)
- Computer Science and Music with Concentration in Music Composition and Technology (p. 316)
- Computer Science and Philosophy (p. 318)
- Computer Science and Physics (p. 320)
- Computer Science and Sociology (p. 322)
- Information Science and Business Administration (p. 325)
- Information Science and Cognitive Psychology (p. 329)
- Information Science and Environmental Science (p. 331)
- Information Science and Journalism (p. 333)


## Bachelor of Science in Computer Engineering (BSCompE)

- Computer Engineering and Computer Science (p. 276)


## Dual Degree

- Computer Science and Mathematics, BS/MS (p. 314)


## Computer Science and Information Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Computer Science Courses

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 |
| :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |

Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 | Discrete Structures <br> and CS 1801 | 4 |
| :--- | :--- | ---: |
| and Recitation for CS 1800 |  |  |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |
| and CS 2501 | and Lab for CS 2500 |  |
| CS 2510 | Fundamentals of Computer Science 2 | 5 |
| and CS 2511 | and Lab for CS 2510 |  |
| CS 2800 | Logic and Computation | 5 |
| and CS 2801 | and Lab for CS 2800 |  |


| Computer Science | Required Courses |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4400 | Programming Languages | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

## Information Science Courses

$\left.\begin{array}{lll}\text { Required Courses in Information Science } \\ \text { IS } 2000 & \text { Principles of Information Science }\end{array}\right] 4$
Computing and Social Issues
Complete one of the following:

PHIL 1145 Technology and Human Values

| SOCL 1280 | The Twenty-First-Century Workplace |
| :--- | :--- |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Psychology

PSYC 1101
Foundations of Psychology

## Mathematics and Statistics Requirements

Calculus

| MATH 1341 | Calculus 1 for Science and Engineering <br> (A grade of C- or higher is required) | 4 |
| :--- | :--- | ---: |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2331 | Linear Algebra | 4 |
| Statistics |  |  |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| or ECON 2350 | Statistics |  |

## Computer Science English Requirement

College Writing
ENGW 1111 First-Year Writing 4
Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete seven general electives.

## Program Requirement

133 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$


| MATH 1341 | 4 MATH 1342 | 4 |  |  |
| :--- | :---: | :---: | :--- | :--- |
|  | CS 1210 | 1 |  | 0 |


| Year 3 |  |  |  |  |
| :--- | ---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 IS 3500 | 4 MATH 2331 | 4 Co-op | 0 |
|  | CS 3700 | 4 Elective | 4 |  |
|  | IS 4800 | 4 |  |  |
|  | Elective | 4 |  | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CS 4400 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3302 | 4 Elective | 4 |  |
|  | CS 3800 | 4 |  |  |
|  | Elective | 4 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 | 5 |
|  | SOCL 4528 | 4 |
|  | CS 4500 | 4 |
|  | Elective | 4 |
|  | 0 | 17 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3500 | 4 |  |  |  |
| CS 3200 | 4 |  |  | 0 |
| MATH 1341 | 4 |  | 0 |  |
| CS 1210 | 1 | 0 |  |  |
|  | 17 | Hours Summer 1 | Hours Summer 2 | Hours |
| Year 3 |  | 0 Co-op | 0 MATH 2331 | 4 |
| Fall | Hours Spring | 4 Co-op |  | Elective |


| MATH 1342 | 4 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| IS 3500 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 3700 | 4 |  | Elective | 4 |
| IS 4800 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| CS 3800 | 4 IS 4900 | 5 |  |  |  |
| CS 4400 | 4 SOCL 4528 | 4 |  |  |  |
| ENGW 3302 | 4 CS 4500 | 4 |  |  |  |
| Elective | 4 Elective | 4 |  |  |  |
|  |  |  |  | 16 | 17 |
| Total Hours: 134 |  |  |  |  |  |

## Computer Engineering and Computer Science, BSCompE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA in EECE courses

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |

PHYS 1155
and PHYS 1156
and PHYS 1157

Physics for Engineering 2
and Lab for PHYS 1155
and Interactive Learning Seminar for PHYS 1155

1 semester hour from the following course counts toward the mathematics/science requirement:

```
GE 1502 Cornerstone of Engineering 2
```


## Engineering

Complete 48 semester hours in engineering as indicated below.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |$\quad$| Circuits and Signals: Biomedical |
| :--- |
| EECE 2150 |
| and EECE 2151 |$\quad$| Applications |
| :--- |
| and Lab for EECE 2150 |$\quad 4$


| EECE 3154 | Hyperspectral Imaging in an International Context |
| :---: | :---: |
| EECE 2530 <br> and EECE 2531 | Fundamentals of Electromagnetics and Lab for EECE 2530 |
| EECE 2750 | Enabling Engineering |
| EECE 4993 | Independent Study |
| GE 4608 | Nanotechnology in Engineering |
| EECE 2412 to EECE 2530 |  |
| EECE 5576 to EECE 5698 |  |
| EECE 3324 to EECE 4698 |  |
| ENGR 5670 | Sustainable Energy: Materials, Conversion, Storage, and Usage |
| One CS course from the following approved list may be taken the toward the EECE technical elective requirement: |  |
| CS 3200 | Database Design |
| CS 3540 | Game Programming |
| CS 3740 | Systems Security |


| CS 3800 | Theory of Computation |
| :---: | :---: |
| CS 4850 | Building Game Engines |
| CS 4100 to CS 4410 |  |
| CS 4510 to CS 4650 |  |
| CS 4740 to CS 4760 |  |
| CS 5010 to CS 5610 |  |
| CS 5650 to CS 5850 |  |
| IS 4200 to IS 4700 |  |
| Supplemental Credit |  |
| 3 semester hours from the following course count toward the engineering requirement: |  |
| GE 1501 | Cornerstone of Engineering 1 |
| 2 semester engineering | $m$ the following course count toward the ent: |

## GE 1502 Cornerstone of Engineering 2

## 4 Computer Science Requirements

Code Title Hours
Computer Science Introductory Courses

| CS 2500 | Fundamentals of Computer Science 1 | 5 |
| :--- | :--- | :--- |
| and CS 2501 | and Lab for CS 2500 |  |

CS $2510 \quad$ Fundamentals of Computer Science 2 5

| and CS 2511 | and Lab for CS 2510 |
| :--- | :--- |
| CS 2800 | Logic and Computation |

and CS 2801 and Lab for CS 2800

Computer Science Upper-Level Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

## Professional Development

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Professional Development |  |  |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| EECE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| EECE 3000 | Professional Issues in Engineering | 1 |

## Additional Required Courses

The remaining credit from each of the following courses will 1 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

| Code | Title Hours |
| :--- | :--- | :--- |
| Writing |  |

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions | Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete two academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Integrative Courses

The following courses are taken in the major and count toward the integrative requirement:

| Code | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| CS 1800 | Discrete Structures | 4 |
| PHYS 1151 | Physics for Engineering 1 |  |
| and PHYS 1152 | and Lab for PHYS 1151 |  |
| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

138 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1110 | 4 GE 1111 | 4 |  |  |
| Elective | 4 ENGW 1111 | 4 | 0 | 0 |
|  | 17 | 17 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 EECE 2160 | 3 Vacation | 0 Co-op | 0 |
| PHYS 1155 | 3 EECE 2161 | 1 |  |  |
| PHYS 1156 | 1 CS 2510 | 4 |  |  |
| PHYS 1157 | 1 CS 2511 | 1 |  |  |
| CS 2500 | 4 CS 2800 | 4 |  |  |
| CS 2501 | 1 CS 2801 | 1 |  |  |
| CS 1800 | 4 Elective | 4 |  |  |


| CS 1801 | 0 EECE 2000 | 1 |  |  |
| :--- | ---: | ---: | ---: | ---: |
| 18 | 19 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 EECE 2150 | 4 ENGW 3302 | 4 Co-op | 0 |
|  | EECE 2151 | 1 CS 3500 | 4 |  |
|  | CE <br> fundamental <br> course | 5 |  |  |
|  | CE <br> fundamental <br> course | 5 |  | 0 |


| Year 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | EECE 3000 | 1 | EECE 4790 | 4 | Co-op | 0 |
|  |  | CE <br> fundamental course | 5 | CS 4800 | 4 |  |  |
|  |  | EE fundamental course | 5 |  |  |  |  |
|  |  | MATH 3081 | 4 |  |  |  |  |
|  |  | CS 3700 | 4 |  |  |  |  |
|  | 0 |  | 19 |  | 8 |  | 0 |
| Year 5 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |  |
| Co-op | 0 | EECE 4792 | 4 |  |  |  |  |
|  |  | EECE technical elective | 4 |  |  |  |  |
|  |  | EECE <br> technical elective | 4 |  |  |  |  |
|  |  | CS 4500 | 4 |  |  |  |  |
|  | 0 |  | 16 |  |  |  |  |

Total Hours: 141

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 | 4 MATH 1342 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS 1155 | 3 |  |  |  |
| PHYS 1156 | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |


| CS 2500 | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| CS 2501 | 1 |  |  |  |
| CS 1800 | 4 |  |  | 0 |
| CS 1801 | 0 | 0 | 0 | 0 |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| EECE 2150 | 4 Co-op | 0 Co-op | 0 ENGW 3302 | 4 |
| EECE 2151 | 1 |  | MATH 3081 | 4 |
| EECE 2160 | 3 |  |  |  |
| EECE 2161 | 1 |  |  |  |
| CS 2510 | 4 |  |  |  |
| CS 2511 | 1 |  |  |  |
| CS 2800 | 4 |  |  |  |
| CS 2801 | 1 |  |  |  |
|  | 19 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| EECE 3000 | 1 Co-op | 0 Co-op | 0 EECE 4790 | 4 |
| CE <br> fundamental <br> course | 5 |  | CS 4800 | 4 |
| CE <br> fundamental <br> course | 5 |  |  |  |
| CS 3500 | 4 |  |  | 8 |
| CS 3650 | 4 | 0 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| EECE 4792 | 4 Elective | 4 |
| CE | 5 EECE | 4 |
| fundamental |  |  |
| course | elechnical <br> elective | 5 <br> EECE <br> technical <br> elective |
| E <br> fundamental <br> course | 4 CS 4500 | 4 |
| CS 3700 | 18 | 16 |

Total Hours: 141

## Computer Science and Biology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code <br> Computer Science Overview | Hours |  |
| :---: | :--- | ---: |
| CS 1200 | Computer Science/Information Science <br> Overview 11 | 2 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation 2 |  |

## Computer Science Fundamental Courses

A grade of C- or higher is required in each course:
CS $1800 \quad$ Discrete Structures

| and CS 1801 | and Recitation for CS 1800 |
| :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 |


| and CS 2501 | and Lab for CS 2500 |
| :--- | :--- |
| CS 2510 | Fundamentals of Computer Science 2 |


| and CS 2511 | and Lab for CS 2510 |
| :--- | :--- |
| CS 2800 | Logic and Computation |


| CS 2800 | Logic and Computation | 5 |
| :--- | :--- | :--- |
| and CS 2801 | and Lab for CS 2800 |  |


| Computer Science Required Courses |  |
| :--- | :--- |
| CS $3200 \quad$ Database Design | 4 |


| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation (integrative | 4 |


|  | $l$ course) | 4 |
| :--- | :--- | :--- |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data (integrative <br> course) |  |

Senior Seminar
CS 4000
1 Students entering through the biology department may take BIOL
1000.
${ }^{2}$ Students entering through the biology department may take EESC
2000 .

## Biology Courses

Code Title Hours

## Foundations of Biology

BIOL 1107 Foundations of Biology 5
and BIOL 1108 and Lab for BIOL 1107
Inquiries
BIOL 2299 Inquiries in Biological Sciences 4
Molecular Biology
BIOL 2301 Genetics and Molecular Biology 5
and BIOL 2302 and Lab for BIOL 2301
Techniques in Biology

| BIOL 2309 | Techniques in Biology: An Inquiry- <br> Based Lab | 4 |
| :--- | :--- | ---: |
| Chemistry |  | 5 |
| CHEM 1211 | General Chemistry 1 |  |
| and CHEM 1212 | and Lab for CHEM 1211 <br> and CHEM 1213 1211 | and Recitation for CHEM 121 |



| Year 2 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |  |
| CS 2800 | 4 CS 4800 | 4 | Vacation | 0 Co-op | 0 |
| CS 2801 | 1 BIOL 2309 | 4 |  |  |  |
| CS 3500 | 4 CHEM 2313 | 4 |  |  |  |
| CHEM 2311 | 4 CHEM 2314 | 1 |  |  |  |
| CHEM 2312 | 1 MATH 1251 | 4 |  |  |  |
| BIOL 2301 | 4 CS 1210 | 1 |  | 0 |  |
| BIOL 2302 | 1 |  | 0 |  |  |
|  | 19 | 18 |  |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3800 | 4 ENGW 3302 | 4 Co-op | 0 |
|  | BIOL <br> undergraduat <br> elective | 5 Elective | 4 |  |
|  | MATH 1252 | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3200 | 4 Elective | 4 Co-op | 0 |
|  | BIOL <br> undergraduatı <br> elective | 5 Elective | 4 |  |
| MATH 3081 | 4 |  |  |  |
| SOCL 4528 | 4 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | BIOL <br> undergraduate <br> elective | 5 |
|  | BIOL 4701 | 4 |
|  | Elective | 4 |
| 0 | 18 |  |

Total Hours: 143

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 CS 2511 | 1 |  |  |
| CS 2500 | 4 BIOL 2299 | 4 |  |  |
| CS 2501 | 1 CHEM 1214 | 4 |  |  |
| BIOL 1107 | 4 CHEM 1215 | 1 |  |  |
| BIOL 1108 | 1 CHEM 1216 | 0 |  |  |
| CHEM 1211 | 4 ENGW 1111 | 4 |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |



| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BIOL 2301 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| BIOL 2302 | 1 |  |  |  |
| CHEM 2311 | 4 |  |  |  |
| CHEM 2312 | 1 |  |  | 0 |
| CS 2800 | 4 |  | 0 | 0 |
| CS 2801 | 1 |  |  |  |
| CS 3500 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
|  | 20 |  |  |  |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| BIOL 2309 | 4 |  | ENGW 3302 | 4 |
| CHEM 2313 | 4 |  |  |  |
| CHEM 2314 | 1 |  |  |  |
| MATH 1251 | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3800 | 4 Co -op | 0 Co-op | 0 Elective | 4 |
| BIOL undergraduat elective | 5 |  | Elective | 4 |
| MATH 1252 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 3200 | 4 CS 4500 | 4 |
| MATH 3081 | 4 CS 4000 | 1 |
| BIOL <br> undergraduate <br> elective | 5 BIOL 4701 | 4 |
| SOCL 4528 | 4 BIOL <br> undergraduat <br> elective | 5 |
|  | Elective | 4 |
| Total Hours: 143 | 18 |  |

## Computer Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer ScienceOverview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required in Computer Science
Fundamental Courses.

| CS 1800 | Discrete Structures |  |
| :--- | :--- | :---: |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| and CS 2501 | and Lab for CS 2500 | 5 |
| CS 2510 | Fundamentals of Computer Science 2 |  |
| and CS 2511 | and Lab for CS 2510 | 5 |
| CS 2800 | Logic and Computation |  |
| and CS 2801 | and Lab for CS 2800 | 5 |
| Computer Science Required Courses | 5 |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Computer Science Senior Seminar |  |  |
| :--- | :--- | :--- |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |

## Upper Division CS/IS Elective

With advisor approval, a directed study, project study, or appropriate graduate-level course may also be taken as a computer science elective.
Complete one course in the following ranges: 4
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Business Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Business Courses |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| FINA 2201 | Financial Management | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| MGSC 2301 | Business Statistics | 4 |
| Choose one of the following: ${ }^{1}$ |  | 4 |
| STRT 4501 | Strategy in Action |  |
| STRT 4514 | Internal Case Competition Challenge |  |

STRT $4516 \quad$ External Case Competition Challenge
1 Strategy in Action (STRT 4501), Internal Case Competition Challenge (STRT 4514) and External Case Competition Challenge (STRT 4516) all satisfy the Capstone Requirement.

## Business Concentration

Complete a four-course business concentration from the following list. Requirements for the concentrations are listed below (p. 283).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Marketing
- Supply Chain Management


## Information Resource Management

| Code | Title | Hours |
| :--- | :--- | ---: |
| Information Resource Management |  |  |
| MISM 3305 | Information Resource Management <br> (integrative course) | 4 |

## Mathematics and Economics Requirements

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| or MATH 1231 | Calculus for Business and Economics |  |
| Economics |  | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> IA 5240 | Technopolitics |

## Computer Science English Requirement

Note: Students are strongly encouraged to take Advanced Writing in the Technical Professions (ENGW 3302) but may substitute Interdisciplinary Advanced Writing in the Disciplines (ENGW 3315).

| Code Title <br> College Writing  <br> ENGW 1111 First-Year Writing | Hours |  |
| :--- | :--- | ---: |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions | 4 |

## Required General Electives

Code Title Hours

Complete three general electives.

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Computer Science GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Concentrations

CONCENTRATION IN ACCOUNTING

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| 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 |  |  |
| Code | Title | Hours |
| Note: The following courses do not count toward this concentration: |  |  |
| ENTR 1201 | The Entrepreneurial Universe |  |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |

ENTR 4514 Development Practice and Global Citizenship in India
Introductory Course

| ENTR 2301 | Innovation! | 4 |
| :--- | :--- | :--- |
| or ENTR 2303 | Entrepreneurial Marketing and Selling |  |
| Capstone Course |  | 4 |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |


| ENTR 2206 | Global Social Enterprise |
| :--- | :--- |
| ENTR 2215 | Understanding Family Enterprise |
| ENTR 2414 | Social Responsibility of Business in an <br> Age of Inequality |
| ENTR 3210 | Social Impact Investing: Connecting <br> Compassion and Capital |
| ENTR 3212 | Innovation for Social Change |
| ENTR 3217 | Global Family Business Leadership |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| ENTR 3220 | International Entrepreneurship and <br> Innovation |


| ENTR 3305 | Business Modeling for Entrepreneurs |
| :--- | :--- |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic <br> Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American <br> Business Environment |
| ENTR 3330 | Lean Design and Development for <br> Entrepreneurs |

ENTR 3336 Resource Management and Renewable Energy in Iceland

| ENTR 3348 | Family Business: A Global Perspective |
| :--- | :--- |
| ENTR 3401 | Management of Operations and Growth <br> in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a Technology- <br> Based Startup Firm |


| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| :--- | :--- |
| ENTR 3520 | Impact Investing and Social Finance <br> ENTR 4225 <br>  <br> Globporate Entrepreneurship through <br> Alliances |
| ENTR 4512 | Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN FINANCE

Code Title
Hours
Required Course


| MISM 3305 | 4 MKTG 2201 | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Business <br> elective | 4 |  |  |  |
| ENGW 3302 | 4 | 8 | 0 |  |
| 0 | 16 |  |  |  |


| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Business <br> elective <br> CS 3700 | 4 Elective | 4 Co-op | 0 |
|  | Business <br> elective | 4 | 4 |  |
|  | CS Elective <br> undergraduatı <br> elective | 4 |  |  |
| 0 | 16 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | Business <br> elective | 4 |
|  | CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | SOCL 4528 | 4 |
|  | 0 | 17 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 1341 | 4 |  |  |  |
| ACCT 1201 | 4 |  |  |  |
| MGSC 2301 | 4 |  | 0 | 0 |
| CS 1210 | 1 | 0 | 0 |  |
|  | 17 |  |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CS 4800 | 4 Co-op | 0 Co-op | 0 ORGB 3201 | 4 |
| CS 3200 | 4 |  | MKTG 2201 | 4 |
| ACCT 2301 | 4 |  |  |  |
| FINA 2201 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 3650 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MISM 3305 | 4 |  | Elective | 4 |
| Business elective | 4 |  |  |  |
| ENGW 3302 | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| CS undergraduate elective | 4 STRT 4501 | 4 |  |  |
| Business elective | 4 SOCL 4528 | 4 |  |  |
| Business elective | 4 CS 4500 | 4 |  |  |
| CS 3700 | 4 Business elective | 4 |  |  |
|  | CS 4000 | 1 |  |  |
|  | 16 | 17 |  |  |

Total Hours: 134

## Computer Science and Cognitive Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |  |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 <br> and CS 1801 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | :---: |
| CS 2500 <br> and CS 2501 | Fundamentals of Computer Science 1 <br> and Lab for CS 2500 | 5 |
| CS 2510 CS 2511 Fundamentals of Computer Science 2 | 5 |  |
| CS 2800 and Lab for CS 2510 <br> and CS 2801 Logic and Computation <br> and Lab for CS 2800 | 5 |  |


| Computer Science Required Courses |  |  |
| :---: | :---: | :---: |
| CS 3500 | Object-Oriented Design |  |
| CS 4100 | Artificial Intelligence (Integrative course) |  |
| CS 4500 | Software Development (Integrative course) |  |
| CS 4800 | Algorithms and Data |  |
| IS 4300 | Human Computer Interaction (Integrative course) |  |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ or THTR 1170 | Senior Seminar <br> The Eloquent Presenter |  |
| Computer Science Elective Courses |  |  |
| With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives. |  |  |
| Complete two courses from the following ranges: |  |  |
| CS 2600 to CS 7999 but not CS 5010 |  |  |
| IS 2000 to IS 7999 but not IS 4900 |  |  |

## Psychology Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3464 | Psychology of Language | 4 |
| PSYC 3466 | Cognition | 4 |
| Advanced Psychology |  |  |
| $\begin{aligned} & \text { PSYC } 3452 \\ & \text { or PSYC } 3458 \end{aligned}$ | Sensation and Perception Biological Psychology | 4 |
| Laboratory in Psychology |  |  |
| Complete one of the following: |  | 4 |
| PSYC 4610 | Laboratory in Psycholinguistics |  |
| PSYC 4612 | Laboratory in Cognition |  |
| PSYC 4622 | Laboratory in Sensation and Perception |  |
| Seminar in Psychology |  |  |
| Complete one of the following: |  | 4 |
| PSYC 4658 | Seminar in Psycholinguistics |  |
| PSYC 4660 | Seminar in Cognition |  |
| PSYC 4668 | Seminar in Sensation and Perception |  |
| PSYC 4674 | Seminar in Cognitive Neuroscience |  |

## Psychology Electives

Note: Courses satisfying the categories above cannot be reused.
Complete two of the following: 8

| PSYC 3402 | Social Psychology |
| :--- | :--- |
| PSYC 3450 | Learning and Motivation |
| PSYC 3451 | Learning Principles and Behavior <br> Analysis |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 4512 | Neuropsychology |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |


| PSYC 4526 | Categorization and Reasoning |
| :--- | :--- |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4652 | Seminar in Ethics in Psychology |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4668 | Seminar in Sensation and Perception |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| With prior approval, directed study research and Honors |  |
| Project courses can also be counted: |  |
| PSYC 4970 | Junior/Senior Honors Project 1 |
| PSYC 4971 | Junior/Senior Honors Project 2 |
| PSYC 4991 | Directed Study Research |

## Additional Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  |  |
| A grade of C- or higher is required: | 4 |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |

## Computer Science English Requirement <br> Code Title Hours <br> College Writing <br> ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |

## Required General Electives

Code Title Hours
Complete eight general electives. 32

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 CS 4800 | 4 | Vacation | 0 Co-op |$\quad 0$

$\begin{array}{lcccr}\text { Year 3 } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Co-op } & 0 \text { IS 4300 } & \text { 4 Elective } & 4 \text { Co-op } & 0 \\ & \begin{array}{llll} & \text { ENGW 3302 }\end{array} & 4 \text { Elective } & 4 & \\ & \begin{array}{l}\text { PSYC } \\ \text { undergraduate } \\ \text { elective }\end{array} & 4 & & \\ & \begin{array}{l}\text { CS } \\ \text { undergraduatı } \\ \text { elective }\end{array} & 4 & & 0\end{array}$


## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 CS 4000 | 1 |


|  | CS 4500 | 4 |
| :--- | ---: | ---: |
| SOCL 4528 | 4 |  |
| PSYC | 4 |  |
| seminar |  |  |
|  | Elective | 4 |
| 0 | 17 |  |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

Year 1
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS } 1800 & 4 \text { CS } 2510 & 4 & \text { Vacation } & 0 \text { Vacation }\end{array}\right) 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 1341 | 4 |  |  |  |
| PSYC 2320 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| CS 1210 | 1 |  |  | 0 |
|  | 17 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PSYC 3464 | 4 |  | Elective | 4 |
| PSYC 3452 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| IS 4300 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| ENGW 3302 | 4 |  | Elective | 4 |
| PSYC <br> undergraduate <br> elective | 4 |  |  |  |
| CS <br> undergraduat <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | :---: |
| CS 4100 | 4 CS 4500 | 4 |
| CS | 4 CS 4000 | 1 |
| undergraduat <br> elective |  |  |
| PSYC lab <br> elective | 4 SOCL 4528 | 4 |


| PSYC <br> undergraduat। <br> elective | 4 PSYC <br> seminar | 4 |
| :--- | :---: | :---: |
|  | Elective | 4 |
|  | 16 | 17 |

Total Hours: 134

## Computer Science and Communication Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science | 1 |
| Overview 1 |  |  |


| A grade of C - or higher is required: |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Upper-Level Requirements |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4550 | Web Development | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Computer Science Senior Seminar |  |  |
| :---: | :---: | :---: |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Elective Courses |  |  |
| Complete two courses from the following ranges: |  | 8 |
| IS 2000 to IS 5999 but not IS 4900 |  |  |
| CS 2600 to CS 5999 but not CS 5010 |  |  |
| Co-op Preparation |  |  |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| or EEAM 2000 | Professional Development for Co-op |  |

## Mathematics Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

MATH $1341 \quad$ Calculus 1 for Science and Engineering
4

## Communication Studies Courses

$\left.\begin{array}{llr}\text { Code } & \text { Title } & \text { Hours } \\ \text { Communication Studies Common Requirements }\end{array}\right)$

## Cluster Course

Complete one of the following: 4

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| Writing-Intensive |  |
| Complete two of the following: | 8 |


| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br>  <br> COMM 3415 |
| COMM Communication Criticism |  |

COMM 3501 Free Speech: Law and Practice
COMM 3530 Communication and Sexualities
COMM 3532 Theories of Conflict and Negotiation
COMM 3610 Communication, Politics, and Social Change
COMM 4131 Sex and Interpersonal Communication
COMM 4533 Consultation Skills
$\begin{array}{ll}\text { COMM 4534 } & \begin{array}{l}\text { Organizational Communication Training } \\ \text { and Development }\end{array} \\ \text { COMM 4535 } & \text { Nonverbal Social Interaction }\end{array}$
COMM 4602 Contemporary Rhetorical Theory
COMM $4605 \quad$ Youth and Communication Technology
COMM $4631 \quad$ Crisis Communication and Image Management
COMM 4901 Seminar in Communications
COMM 4918 Special Topics in Communication Studies

## Communication Studies Electives

Complete three courses from the following range: ${ }^{1}$

## COMM 1131 to COMM 4996

1
Special Topics in Communication Studies (COMM 4912), Junior/ Senior Honors Project 1 (COMM 4970), Junior/Senior Honors Project 2 (COMM 4971), and Research (COMM 4991) are excluded.

## Writing Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines
Choose one of the following: 4

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| ENGW 3315 | Interdisciplinary Advanced Writing in <br> the Disciplines |
| COMM 3409 | Advocacy Writing ${ }^{1}$ |
| 2 | If Advocacy Writing (COMM 3409) is selected it will also satisfy a |
| communication studies elective requirement. One additional general |  |
| elective will be then required in its place. |  |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |

## Required General Electives <br> Code Title

Hours
Complete eight general electives.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Communication Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and COMM courses

## Program Requirement

134 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |
| CS 2501 | $\begin{aligned} & 1 \text { COMM } 1112 \\ & \text { or } 2301 \end{aligned}$ | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| COMM 1101 | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1210 | 1 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3500 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| Communicati <br> studies <br> foundation <br> course | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 17 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3200 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| Communication <br> studies <br> cluster <br> course | 4 |  |  |  |
| Communicati، <br> studies <br> writing- <br> intensive <br> course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Advanced <br> writing | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Communicati <br> studies <br> elective | 4 | Elective | 4 |  |
| Computer <br> science <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |



Total Hours: 134

## Computer Science and Criminal Justice, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| Computer Science Fundamental Courses |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 2000 | Principles of Information Science | 4 |

## Co-op Preparation Requirement

Complete one of the following consistent with your major:

| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation |  |
| :---: | :---: | :---: |
| or CRIM 2000 | Co-op Integration Seminar 1 |  |
| Computer Science Elective Courses |  |  |
| Complete three upp from the following | $r$-division computer science courses nges: | 12 |
| CS 2500 to CS 7999, but not CS 5010 |  |  |
| IS 2000 to IS 7999, but not IS 4900 |  |  |
| DS 2000 to DS 7999, but not DS 4900 |  |  |
| Presentation Requirement |  |  |
| THTR 1170 | The Eloquent Presenter | 1 |

## Criminal Justice Courses

| Code | Title | Hours |
| :--- | :--- | :---: |
| Criminal Justice Required Courses |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |

## Criminal Justice Electives

| Complete one | rom the following: | 4 |
| :---: | :---: | :---: |
| CRIM 1300 | The Death Penalty |  |
| CRIM 1400 | Human Trafficking |  |
| CRIM 1500 | Corruption, Integrity, and Accountability |  |
| CRIM 1700 | Crime, Media, and Politics |  |
| Complete one | from the following: | 4 |


| CRIM 3010 | Criminal Violence |  |
| :---: | :---: | :---: |
| CRIM 3020 | Victims of Crime |  |
| CRIM 3030 | Global Criminology |  |
| CRIM 3040 | Psychology of Crime |  |
| CRIM 3050 | Organized Crime |  |
| CRIM 3100 | Criminal Law |  |
| CRIM 3200 | Juvenile Justice |  |
| CRIM 3300 | Corrections |  |
| CRIM 3400 | Security |  |
| CRIM 3500 | Policing |  |
| CRIM 3900 | Topics in Criminal Justice and Criminology |  |
| Complete one course from the following: |  | 4 |
| CRIM 4010 | Gender, Crime, and Justice |  |
| CRIM 4020 | Race, Crime, and Justice |  |
| CRIM 4030 | Criminal Justice Organization and Management |  |
| Complete one additional CRIM Elective |  | 4 |
| Criminal Justice Required Capstone |  |  |
| CRIM 4949 | Senior Capstone Seminar | 4 |

## Integrative Course Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one course from the following: | 4 |  |
| CRIM 4040 | Crime Prevention |  |
| CRIM 4630 | Political Crime and Terrorism |  |
| CRIM 4640 | Corporate and White-Collar Crime |  |
| CRIM 4800 | Crime Mapping |  |


| CRIM 4900 | Advanced Seminar in Criminology and Criminal Justice |  |
| :---: | :---: | :---: |
| Major GPA Requirement |  |  |
| Minimum 2.000 GPA required in all CS and IS courses |  |  |
| CCIS Computing and Social Issues |  |  |
| Code | Title | Hours |
| Complete one of the | following: | 4 |
| SOCL 4528 | Computers and Society |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| PHIL 1145 | Technology and Human Values |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |
| Computer Science English Requirement |  |  |
| Code | Title | Hours |
| College Writing |  |  |
| ENGW 1111 or ENGW 1102 | First-Year Writing <br> First-Year Writing for Multilingual Writers | 4 |
| Advanced Writing in the Disciplines |  |  |
| Complete one course from the following: |  |  |
| ENGW 3302 | Advanced Writing in the Technical Professions |  |
| ENGW 3308 | Advanced Writing in the Social Sciences |  |
| ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |
| Required General Electives |  |  |
| Code | Title | Hours |
| Complete seven g | ral electives. | 28 |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Understanding Societies and Institutions
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

Four Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 <br> and CS 1801 | CS 2510 <br> and CS 2511 | 5 CS 3200 | 4 Vacation |  |
| CS 2500 <br> and CS 2501 | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 CRIM 2200 | 4 |  |  |
| CRIM 1100 | 4 |  |  | 0 |
|  | 18 | 17 | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | :---: |
| CS 2800 | 5 CS 1210 or | 1 ENGW 3302, | 4 Co-op |  |
| and CS 2801 | CRIM 2000 | 3308, or <br> 3315 |  |  |
| CS 4800 | 4 CS Elective 1 | 4 Elective | 4 |  |
| CRIM 3600 | 4 CRIM 3700 | 4 |  |  |
| CRIM | 4 CRIM | 4 |  |  |
| Elective 1 | Elective 2 |  |  | 0 |
|  | Elective | 4 | 8 |  |

Year 3
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Co-op } & \text { CS Elective 2 } & \text { 4 Elective } & 4 \text { Co-op }\end{array}\right]$

Total Hours: 134

## Four Years, 2 Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 | 4 CS 2510 | 5 CS 3200 | 4 Vacation |  |
| and CS 1801 | and CS 2511 |  |  |  |



| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3200 |  | CS 1210 or CRIM 2000 | 1 Vacation | Co-op |  |
| CS 3500 |  | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| CS 4800 | 4 | CRIM 3700 | 4 |  |  |
| CRIM 3600 |  | CRIM <br> Elective 1 | 4 |  |  |
|  |  | CRIM <br> Elective 2 | 4 |  |  |
|  | 16 |  | 18 | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 1 | $\begin{aligned} & 4 \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
|  |  | CRIM <br> Elective 3 | 4 Elective | 4 |  |
|  |  | SOCL 4528, <br> 3485, 1280, <br> ANTH 3418, <br> PHIL 1145, <br> or IA 5240 | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | THTR 1170 | 1 |  |  |
|  | 0 |  | 17 | 8 | 0 |

Year 4

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS Elective 2 | 4 CS Elective 3 | 4 Elective (if <br> needed) | 4 |
| CRIM | 4 CRIM 4949 | 4 Elective (if <br> needed) | 4 |
| Elective 3 | 4 CRIM 4040, | 4 |  |
| CRIM | 4630,4640, |  |  |
| Elective 4 | 4800, or |  |  |
|  | 4900 |  |  |
|  |  |  |  |


| SOCL 4528,3485,1280, | 4 Elective | 4 |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| ANTH 3418, |  |  |  |
| PHIL 1145, |  |  |  |
|  | 16 | 16 | 8 |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1800 and CS 1801 | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 CRIM 2200 | 4 |  |  |
| CRIM 1100 | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

Total Hours: 134

Five Years, 3 Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1800 and CS 1801 | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 CRIM 2200 | 4 |  |  |


| CRIM 1100 | 4 |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
|  | 18 | 17 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1210 or | 1 Co-op | Co-op |  | Vacation |
| CRIM 2000 |  |  |  |  |
| CS 3200 | 4 |  |  |  |
| CS 3500 | 4 |  |  |  |
| CS 4800 | 4 |  | 0 | 0 |
| CRIM 3600 | 4 | 0 |  |  |
|  | 17 |  |  |  |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Co-op | Co-op | $\begin{aligned} & \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 |
| CRIM 3700 | 4 |  | Elective | 4 |
| Elective 1 |  |  |  |  |
| CRIM <br> Elective 2 | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| Elective 3 |  |  |  | 4 |
| SOCL 4528, 3485, 1280, ANTH 3418, PHIL 1145, or IA 5240 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| CS Elective 2 | 4 CS Elective 3 | 4 |
| CRIM | 4 CRIM 4949 | 4 |
| Elective 4 |  |  |
| CRIM 4040, | 4 Elective | 4 |
| 4630,4640, |  |  |
| 4800 , or |  | 4 |
| 4900 | 4 Elective | 4 |
| Elective | 16 | 16 |

Total Hours: 134

## Computer Science and Digital Art, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of $\mathrm{C}-$ or higher is required: |  |  |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 <br> and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4300 | Computer Graphics | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 4300 | Human Computer Interaction | 4 |

Computer Science Senior Seminar

| CS 4000 | Senior Seminar | 1 |
| :--- | :--- | :--- |
| or THTR $1170 \quad$ The Eloquent Presenter |  |  |
| Computer Science Elective Courses | 8 |  |
| Complete two courses from the following ranges: |  |  |
| CS 2600 to CS 7999 but not CS 5010 |  |  |
| IS 2000 to IS 7999 but not IS 4900 |  |  |

## Digital Art Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Digital Art Courses |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools | 5 |
| Digital Art Electives |  |  |


| Complete five of the following: |  | 20-23 |
| :---: | :---: | :---: |
| Basics |  |  |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| Photography |  |  |
| ARTD 3460 | Photography 1 |  |
| ARTD 4565 | Photography 2 |  |
| ARTD 4660 | Studio Photography |  |
| ARTD 4661 | Alternative Photographic Processes |  |
| Animation |  |  |
| ARTD 3470 | Animation 1 |  |
| ARTD 3471 | Virtual Environment Design |  |
| ARTD 3472 | Character Design for Animation |  |
| ARTD 4570 | Animation 2 |  |
| ARTD 4575 | Animation 3 |  |
| ARTD 4577 | Digital Sculpture and Model Making |  |
| Video |  |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 5582 | Collaborative Video and Community Engagement |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |
| History |  |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Digital Art Capstone Requirement |  |  |
| ARTD 4530 | Media Arts Degree Project 1 | 4 |
| ARTD 4670 | Media Arts Degree Project 2 | 4 |


| Major Requirements |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 2331 | Linear Algebra | 4 |

Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |


| Computer Science English Requirement |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3302 | Advanced Writing in the Technical Professions | 4 | Professions

$$
\begin{array}{ll}
\text { or ENGW } 3315 & \begin{array}{l}
\text { Interdisciplinary Advanced Writing in the } \\
\text { Disciplines }
\end{array}
\end{array}
$$

## Required General Electives

| Code | Title |
| :--- | ---: |
| Complete four general electives. | Hours |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Integrating Knowledge and Skills Through Experience
- Demonstrating Thought and Action in a Capstone


## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Program Requirement

137 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1200 | 4 CS 2511 | 1 |  |  |
| CS 1800 | 0 CS 2800 | 4 |  |  |
| CS 1801 | 4 CS 2801 | 1 |  |  |
| CS 2500 | 1 ARTF 1124 | 4 |  |  |
| CS 2501 | 4 ARTF 1125 | 1 |  | 0 |
| ARTF 1122 | 1 PSYC 1101 | 4 |  |  |
| ARTF 1123 | 4 |  | 0 |  |
| ENGW 1111 | 19 | 19 |  |  |
|  |  |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 3500 | 4 CS 4800 | 4 Vacation | 0 Vacation | 0 |
| CS 3200 | 4 Digital art elective | 4 |  |  |
| ARTF 2220 | 4 Digital art elective | 4 |  |  |
| ARTF 2221 | 1 IS 4300 | 4 |  |  |
| ARTF 2223 | 4 |  |  |  |
| ARTF 2224 | 1 |  |  |  |
|  | 18 | 16 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1210 | 1 Co-op | 0 Co-op | 0 | 0 |
| MATH 2331 | 4 |  |  |  |
| Computer <br> science <br> elective | 4 |  |  | 0 |
| Digital art <br> elective | 4 |  | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 4300 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3302 | 4 |  |  |  |
| Digital art <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ARTD 4530 <br> $(*)$ | 4 CS 4000 | 1 |
| CS 4500 | 4 <br> ARTD 4670 <br> $(*)$ | 4 |
| Computer <br> science <br> elective | 4 Computing <br> and social <br> issues | 4 |
| Elective | 4 Elective | 4 |
|  | Elective | 4 |

Total Hours: 138
*Indicates course must be taken in the term listed.

## Computer Science and English, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses <br> \section*{Code Title}

Hours
Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 <br> and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Elective Courses |  |  |
| $\begin{aligned} & \text { IS } 2000 \\ & \text { or CS } 4500 \end{aligned}$ | Principles of Information Science <br> Software Development | 4 |
| Computing Focus |  |  |
| Students are required to complete one of the following foci (two courses total). |  | 8 |
| Focus 1: Natural Language Processing |  |  |
| CS 3800 | Theory of Computation |  |
| CS 4120 | Natural Language Processing |  |
| Focus 2: Programming Languages |  |  |
| CS 3800 | Theory of Computation |  |
| CS 4400 | Programming Languages |  |
| Focus 3: Analytics |  |  |
| DS 4100 | Data Collection, Integration, and Analysis |  |
| DS 4200 | Information Presentation and Visualization |  |
| Presentation Requirement |  |  |
| THTR 1170 | The Eloquent Presenter | 1 |

## English Requirements

## Code Title

Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from the lists below must be numbered 3000-4999.

## Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :--- | :--- | :--- |
| ENGL 1160 | Introduction to Rhetoric | 4 |
| or ENGL 1410 | Introduction to Writing Studies |  |
| Diversity |  | 4 |

be used to fulfill an additional English requirement below:

| ENGL 2296 | Early African-American Literature |
| ---: | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL 3685 | From Kafka to Kushner: Modern and |
| Contemporary Jewish Literature |  |


| ENGL 2460 | Multiethnic Literatures of the U.S. |
| :--- | :--- |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |

Pre-Nineteenth-Century Literature
Complete one of the following:

| Complete one of the following: |  |
| :--- | :--- |
| ENGL 1600 | Introduction to Shakespeare |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3151 | Topics in Early Literatures Abroad |
| ENGL 3607 | Chaucer |
| ENGL 3618 | Milton |
| ENGL 3678 | Bedrooms and Battlefields: Hebrew <br> Bible and the Origins of Sex, Gender, <br> and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the <br> Origins of Sex, Gender, and Ethnicity |
| ENGL 4020 | Topics in 17th- and 18th-Century <br> Literatures |

Nineteenth-Century to Twenty-First-Century Literature
Complete one of the following:

| ENGL 2260 | Romantic Poetry |
| :---: | :---: |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 | Contemporary Israeli Literature and Art Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary |


| ENGL 3730 | Twentieth- and Twenty-First-Century <br> Major Figure |
| :--- | :--- |
| ENGL 4060 | Topics in 20th- and 21st-Century <br> Literatures |

## Theories and Methods



Comparative Literature
Complete one of the following: 4
ENGL 1120 Trouble in Utopia
ENGL 1130 Animals, Objects, Humans
ENGL 1450 Reading and Writing in the Digital Age
ENGL $1500 \quad$ British Literature to 1800
ENGL 1501 British Literature 1800 to Present
ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present
ENGL $2370 \quad$ The Modern Short Story
ENGL 2380 The Modern Novel
ENGL 2400 Modern Poetry
ENGL 2420 Contemporary Poetry
ENGL 2430 Contemporary Fiction
ENGL 2450 Postcolonial Literature
ENGL 2460 Multiethnic Literatures of the U.S.
ENGL 2470 Asian-American Literature
ENGL $2480 \quad$ U.S. Latino/a Literature
ENGL $2490 \quad$ Native American Literature
ENGL 2510 Horror Fiction
ENGL 2520 Science Fiction
ENGL 2620 What Is Nature? (Abroad)
ENGL 3427 The Literature of Science
ENGL 3487 Film and Text Abroad
ENGL $3488 \quad$ Film and Text
ENGL 3572 Fantasy
ENGL 3582 Children's Literature
ENGL 3663 The African-American Novel

## Writing

| Complete one of the | following: | 4 |
| :---: | :---: | :---: |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| English Electives |  |  |
| Complete additional courses. | ENGL electives to reach total of 10 ENGL | 4 |
| LING 1150 | Introduction to Language and Linguistics (May substitute for one ENGL course in this elective requirement.) |  |
| Capstone |  |  |
| $\begin{aligned} & \text { ENGL } 4710 \\ & \text { or ENGL } 4720 \end{aligned}$ | Capstone Seminar Capstone Project | 4 |


| Integrative Course Requirement |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| ENGL 3340 | Technologies of Text | 4 |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses.

## CCIS Computing and Social Issues

| Code | Title |
| :--- | ---: | Hours


| SOCL 4528 | Computers and Society |
| :--- | :--- |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 1280 | The Twenty-First-Century Workplace |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> Technopolitics |
| IA 5240 1145 | Technology and Human Values |
|  | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |


| Computer Science English Requirement <br> Code <br> College Writing | Title | Hours |
| :--- | :--- | ---: |
| ENGW 1111 <br> or ENGW 1102 | First-Year Writing <br> First-Year Writing for Multilingual Writers | 4 |


| Advanced Writing in the Disciplines |  |
| :---: | :---: |
| Complete one course from the following: |  |
| ENGW 3302 | Advanced Writing in the Technical Professions |
| ENGW 3309 | Advanced Writing in the Humanities |
| ENGW 3310 | Advanced Writing in Literature |

## ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

Code Title Hours

Complete eight general electives. 32

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Exploring Creative Expression and Innovation
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

4 Plan of Study
Four Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 <br> and CS 1801 | 4 CS 2510 <br> and CS 2511 | 5 CS 3500 | 4 Vacation |  |
| CS 2500 <br> and CS 2501 | 5 CS 2800 <br> and CS 2801 | 5 Elective | 4 |  |
| CS 1200 | 1 ENGL 1160 <br> or 1410 | 4 |  |  |
| ENGW 1111 | 4 English <br> Literary <br> Period 1 | 4 |  |  |
| ENGL 1400 | 4 | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 3200 | 4 Strand Elective 1 | $\begin{aligned} & 4 \text { ENGW } 3302 \text {, } \\ & 3309,3310, \\ & \text { or } 3315 \end{aligned}$ | 4 Co-op |  |
| CS 4800 | 4 CS 1210 | 1 Elective | 4 |  |
| English Literary Period 2 | 4 IS 2000 (or English Category or Elective) | 4 |  |  |
| English <br> Category or Elective | 4 English Category or Elective | 4 |  |  |
|  | ENGL 3340 | 4 |  |  |
|  | 16 | 17 | 8 | 0 |



Year 3
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } \\ \text { Co-op } & \begin{array}{l}\text { Strand } \\ \text { Elective 1 }\end{array} & \begin{array}{c}\text { ENGW 3302, } \\ 3309,3310, \\ \text { or 3315 }\end{array} & 4 \text { Co-op }\end{array}\right]$

| Year 4 <br> Fall <br> Co-op | Hours Spring <br> CS 4500 <br> (or English <br> Category or <br> Elective) | Hours Summer 1 <br> 4 Elective (if <br> needed) | 4 |
| :--- | :---: | :---: | ---: |
|  | ENGL 4710 <br> or 4720 | 4 Elective (if <br> needed) | 4 |
|  | Elective | 4 |  |
|  | Elective | 4 |  |
| 0 | 16 | 8 |  |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | $\begin{aligned} & 5 \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| CS 1200 | $\begin{aligned} & 1 \text { ENGL } 1160 \\ & \text { or } 1410 \end{aligned}$ | 4 |  |  |
| ENGW 1111 | 4 English <br> Literary <br> Period 1 | 4 |  |  |
| ENGL 1400 | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 3500 | 4 CS 3200 | 4 Vacation | Co-op |  |
| CS 4800 | 4 CS 1210 | 1 |  |  |
| English <br> Literary <br> Period 2 | 4 IS 2000 (or English Category or Elective) | 4 |  |  |
| English <br> Category or Elective | 4 English Category or Elective | 4 |  |  |
|  | ENGL 3340 | 4 |  |  |
|  | 16 | 17 | 0 | 0 |



Total Hours: 134

## Computer Science and Environmental Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Computer Science Courses

Code Title
Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 |  |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of C - or higher is required: |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |

Environmental Science Courses
Code Title Hours

| Environmental Science Required Courses |  |  |
| :--- | :--- | ---: |
| ENVR 1200 | Dynamic Earth <br> and Lab for ENVR 1200 | 5 |
| ENVR 5210 1201 | Environmental Planning <br> or ENVR 5250 | Geology and Land-Use Planning |
| ENVR 4900 | Earth and Environmental Science <br> Capstone | 1 |
| or ENVR 4997 | Senior Thesis |  |
| Complete one of the following sequences: | 5 |  |


| ENVR 1202 | History of Earth and Life |
| :--- | :--- |
| and ENVR 1203 | and Interpreting Earth History |
| ENVR 2310 | Earth Materials |
| and ENVR 2311 | and Lab for ENVR 2310 |


| Environmental Science Integrative Courses | $8-10$ |
| :--- | :--- |
| Complete at least two of the following: |  |
| ENVR 3300 | Geographic Information Systems |
| and ENVR 3301 | and Lab for ENVR 3300 |

Environmental Science Electives
If you complete more than two environmental science
integrative courses (above), they will count as environmental
science electives.
Complete four of the following:

| ENVR 1101 | Environmental Science |
| :--- | :--- |
| ENVR 2340 | Earth Landforms and Processes |
| and ENVR 2341 | and Lab for ENVR 2340 |
| ENVR 3400 | Field Geology |
| ENVR 3410 | Environmental Geochemistry |


| ENVR 4106 <br> and ENVR 4107 | Coastal Processes <br> and Lab for ENVR 4106 |
| :--- | :--- |
| ENVR 4504 | Environmental Pollution |
| ENVR 4505 | Wetlands |
| ENVR 4563 | Advanced Spatial Analysis |
| ENVR 5190 | Soil Science |
| ENVR 5201 | Geologic Field Seminar |
| ENVR 5230 | Structural Geology |
| and ENVR 5231 | and Lab for ENVR 5230 |
| ENVR 5240 | Sedimentary Basin Analysis |
| and ENVR 5241 | and Lab for ENVR 5240 |
| ENVR 5242 | Ancient Marine Life |
| and ENVR 5243 | and Lab for ENVR 5242 |
| ENVR 5248 | Marine Geology |
| ENVR 5270 | Glacial and Quaternary History |
| and ENVR 5271 | and Lab for ENVR 5270 |

## Additional Requirements

| Code |  |  |
| :--- | :--- | ---: |
| Calculus |  |  |
| MATH 1251 | Title | Hours |
| or MATH 1341 | Calculus and Differential Equations for <br> Biology 1 <br> Calculus 1 for Science and Engineering | 4 |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 <br> or MATH 1342 | Calculus 2 for Science and Engineering |
| MATH 3081 | 4 |  |
| Chemistry | Probability and Statistics |  |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society <br> ANTH 3418Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title

Complete six general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

137 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 3500 } & 4 \text { CS 4800 } & 4 & \text { Vacation } & 0 \text { Co-op }\end{array}\right) 0$

| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CS 3200 | 4 Vacation | 0 Co-op | 0 |
|  | MATH 1251 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Hours | Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ---: | :--- | :---: | :---: | :---: | ---: |
| 24 | Co-op | 0 CS 3800 | 4 Vacation | 0 Vacation | 0 |
|  |  | MATH 1252 | 4 |  |  |
|  |  | ENGW 3302 | 4 |  |  |
|  |  | Elective | 4 | 0 |  |
|  | Year 5 |  | 16 |  |  |
|  | Fall | Hours Spring | Hours |  |  |
|  | MATH 3081 | 4 CS 4000 | 1 |  |  |
|  | SOCL 4528 | 4 CS 4500 | 4 |  |  |
|  | Elective | 4 ENVR 4900 | 1 |  |  |
|  | Elective | 4 Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |

Total Hours: 138

## Computer Science and Game Development, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Computer Science Courses
Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science | 1 |
| :--- | :--- | :--- |
| CS 1210 | Overview 1 |  |
|  | Computer Science/Information Science | 1 |
|  | Overview 2: Co-op Preparation |  |

## Computer Science Fundamental Courses

A grade of C - or higher is required in each course:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |


| Upper-Level Computer Science Courses |  |  |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3520 | Programming in C++ (Integrative <br> course) | 4 |


| CS 3540 | Game Programming (Integrative course) | 4 |
| :---: | :---: | :---: |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4300 | Computer Graphics (Integrative course) | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| CS 4850 | Building Game Engines (Integrative course) | 4 |
| Computer Science Elective Course |  |  |
| $\text { CS } 4150$ <br> or IS 4300 | Game Artificial Intelligence (Integrative course) <br> Human Computer Interaction | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Game Design Courses |  |  |
| Code | Title | Hours |
| Game Design |  |  |
| GAME 1110 | Games and Society | 4 |
| GAME 2010 | The Business of Games | 4 |
| GAME 2500 | Foundations of Game Design | 4 |
| GAME 3700 | Rapid Idea Prototyping for Games | 4 |
| GAME 3800 | Game Concept Development and Production | 4 |
| GAME 4700 | Game Design Capstone 1 | 4 |
| GAME 4701 | Game Design Capstone 2 | 4 |
| Game Design Elective |  |  |
| Complete one GAM GAME 3150, or GAM | course other than GAME 2150, 3250. | 4 |
| Computer Science/Game-Related Electives |  |  |
| Complete two cours | s from the following: | 8 |
| Any course in GAME subject area other than GAME 2150, GAME 3150, or GAME 3250 |  |  |
| Any course in the ARTD, ARTE, ARTF, ARTG, ARTH, and ARTS subject areas |  |  |
| CS 2600 to CS 5999 but not CS 5010 |  |  |
| IS 2000 to IS 5999 but not IS 4900 |  |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| ECON 2350 or PSYC 2320 | Statistics <br> Statistics in Psychological Research |  |


| General Requirements  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Psychology |  | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Mathematics |  | 4 |
| A grade of C- or higher is required: |  |  |
| MATH 1260 | Math Fundamentals for Games <br> (Integrative course) | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

Computer Science English Requirement
Code Title
College Writing

ENGW 1111 First-Year Writing
4
Advanced Writing in the Disciplines
Students are strongly encouraged to take Advanced Writing in the Technical Professions (ENGW 3302) but may substitute Interdisciplinary Advanced Writing in the Disciplines (ENGW 3315).
ENGW 3302 Advanced Writing in the Technical 4 Professions
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives <br> Complete three general electives.

Code Title Hours

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Exploring Creative Expression and Innovation
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills through Experience is satisfied through coop.

## Program Requirement

133 total semester hours required

## Plan of Study

## Four Years, Two Co-ops

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CS 1200 | 1 | CS 2510 | 4 CS 3500 | 4 Vacation | 0 |
| CS 1800 | 4 | CS 2511 | 1 PSYC 1101 | 4 |  |
| CS 1801 | 0 | CS 2800 | 4 |  |  |
| CS 2500 | 4 | CS 2801 | 1 |  |  |
| CS 2501 | 1 | MATH 1260 | 4 |  |  |
| GAME 2500 <br> (*) | 4 | GAME 1110 | 4 |  |  |
| ENGW 1111 | 4 | GAME 1111 | 0 |  |  |
|  | 18 |  | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 4800 | 4 CS 1210 | 1 Elective | 4 Co-op |  |
| CS 3520 (*) | 4 CS 3540 $\left(^{*}\right)$ | 4 Elective | 4 |  |
| GAME 2010 <br> $(*)$ | 4 CS 4300 | 4 |  |  |
| GAME 3700 <br> $(*)$ | 4 MATH 1341 | 4 |  |  |
| CS/game- <br> related <br> elective | 4 | 8 | 0 |  |


| Year 3 | Hours Summer 1 |
| :--- | :---: | :---: | :---: | ---: |
| Fall |  |
| Co-op |  |$\quad$| Hours Summer 2 |
| :---: |$\quad$ Hours

## Computer Science and History, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | :---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| CS 1800 | Discrete Structures <br> and CS 1801 | and Recitation for CS 1800 |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| and CS 2501 | and Lab for CS 2500 | 4 |


| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 2000 | Principles of Information Science | 4 |
| Computer Science Elective Courses |  |  |
| Complete thr from the follo | $r$-division computer science courses nges: | 12 |
| CS 2500 to CS 7999, but not CS 5010 |  |  |
| IS 2000 to IS 7999, but not IS 4900 |  |  |
| DS 2000 to DS 7999, but not DS 4900 |  |  |
| Presentation Requirement |  |  |
| THTR 1170 | The Eloquent Presenter | 1 |

## History Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| History Required Courses |  |  |
| HIST 1200 | Historical Research and Writing | 1 |
| HIST 1201 | First-Year Seminar | 4 |
| HIST 2301 | The History Seminar | 4 |
| HIST 2302 | Historical Writing | 1 |
| History Electives |  | 4 |
| Complete one introductory course from the following: |  |  |


| AFAM 1140 | Introduction to African-American History |
| :---: | :---: |
| ASNS 1150 | East Asian Studies |
| HIST 1110 | Introduction to World History |
| HIST 1120 | Public History, Public Memory |
| HIST 1130 | Introduction to the History of the United States |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| HIST 1215 | Origins of Today: Historical Roots of Contemporary Issues |
| HIST 1282 | The Holocaust and Comparative Genocide |
| HIST 2232 | History of Boston |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |
| Complete one course from the following: |  |
| $\begin{aligned} & \text { AFRS } 2390 \\ & \quad \text { or HIST } 2390 \end{aligned}$ | Africa and the World in Early Times Africa and the World in Early Times |
| AFRS 2391 or HIST 2391 | Modern African Civilization Modern African Civilization |
| AFRS 2392 | African Diaspora |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1270 | Ancient Greece |


| HIST 1271 | Ancient Rome |  |
| :---: | :---: | :---: |
| HIST 1285 | Introduction to Russian Civilization |  |
| HIST 2222 | History of Science and Technology |  |
| HIST 2330 | Colonial and Revolutionary America |  |
| Complete three intermediate/advanced level courses: |  | 12 |
| Select from any HIST course numbered 2303 or above. |  |  |
| Complete one advanced level course: |  | 4 |
| Select from any HIST course numbered 3000 or above. |  |  |
| History Capstone Seminar or Senior Project |  |  |
| Complete one Capstone experience from the following: |  | 4 |
| HIST 4701 | Capstone Seminar |  |
| HIST 4911 | Senior Project 1 |  |
| HIST 4912 | Senior Project 2 |  |
| Public history concentrators may also select from the following: |  |  |
| HIST 4903 | Fieldwork in History 1 |  |
| HIST 4904 | Fieldwork in History 2 |  |

## Cluster Requirement

Note: Four of the six courses chosen as History Electives must create a History Cluster of related courses. The History Cluster is subject to Department approval.

\section*{Integrative Course Requirement <br> | Code | Title |
| :--- | :--- |
| HIST 2211 | The World Since 1945 |
| or HIST 2241 | History of Media in America |}

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses
Research Methods Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one course from the following: | 4 |  |
| ECON 2350 | Statistics |  |
| POLS 2400 | Quantitative Techniques |  |
| PSYC 2320 | Statistics in Psychological Research |  |
| SOCL 2320 | Statistical Analysis in Sociology |  |
| ENVR 3300 | Geographic Information Systems |  |
| ENVR 5260 | Geographical Information Systems |  |

CCIS Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one course from the following: | 4 |  |
| SOCL 4528 | Computers and Society |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| PHIL 1145 | Technology and Human Values <br> IA 5240Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

## Computer Science English Requirement

Code
Title
Hours

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| or ENGW 1102 | First-Year Writing for Multilingual Writers |  |

Advanced Writing in the Disciplines
This requirement is satisfied by HIST 2302 taken in conjunction with HIST 2301

## Required General Electives

| Code | Title |
| :--- | ---: |
| Complete eight general electives. | Hours |
|  | 32 |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Writing-Intensive in the Major
- Advanced Writing in the Disciplines
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

Four Years, Two Co-ops in Summer 2/Fall

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 History Elective or Integrative 1 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| HIST 1200 | 1 |  |  |  |
| HIST 1201 | 4 |  |  |  |
|  | 19 | 17 | 8 | 0 |

Year 2

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 4800 | 4 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 | Elective | 4 | Co-op |  |
| HIST 2301 | 4 | CS 1210 | 1 | Elective | 4 |  |  |
| HIST 2302 | 1 | CS Elective 1 | 4 |  |  |  |  |
| History Elective or Integrative 2 | 4 | History Elective or Integrative 3 | 4 |  |  |  |  |

College Writing

| ECON 2350, <br> POLS 2400, <br> PSYC 2320, <br> SOCL 2320, <br> ENVR 3300, <br> or ENVR <br> 5260 |  | History Elective or Integrative 4 | $4$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 |  | 18 | 8 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  |  | History Elective or Integrative 5 | 4 Elective | 4 |  |
|  |  | History Elective or Integrative 6 | 4 |  |  |
|  |  | SOCL 4528, <br> 3485, 1280, <br> ANTH 3418, <br> PHIL 1145, <br> or IA 5240 | 4 |  |  |
|  |  | THTR 1170 | 1 |  |  |
|  | 0 |  | 17 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| Co-op | History <br> Clective 3 <br> Capstone <br> Seminar <br> or Senior <br> Project <br> needed) | 4 Elective (if <br> needed) | 4 |
| History <br> Elective or <br> Integrative 7 | 4 |  |  |
|  | 4 | 8 |  |

Total Hours: 136

## Four Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 | CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | IS 2000 | 4 | CS 3500 | 4 |  |
| CS 1200 |  | History Elective or Integrative 1 | 4 |  |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |  |
| HIST 1200 | 1 |  |  |  |  |  |
| HIST 1201 | 4 |  |  |  |  |  |
|  | 19 |  | 17 |  | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 4800 | 4 Co-op | Co-op | Elective | 4 |
| CS 1210 | 1 |  | Elective | 4 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Co-op | Co-op | Elective | 4 |
| CS Elective 1 | 4 |  | Elective | 4 |
| History <br> Elective or Integrative 3 | 4 |  |  |  |
| History Elective or Integrative 4 | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS Elective 2 | 4 CS Elective 3 | 4 Elective (if <br> needed) | 4 |

## Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 <br> and CS 1801 | 4 CS 2510 | 4 Vacation | Vacation |  |
| CS 2500 <br> and CS 2501 | 5 CS 2511 | 1 |  |  |
| CS 1200 | 1 IS 2000 | 4 |  |  |
| ENGW 1111 | 4 History <br> Elective or <br> Integrative 1 | 4 |  |  |


| HIST 1200 |  | History <br> Elective of Integrative 2 | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 1201 | 4 |  |  |  |  |
|  | 19 |  | 17 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Vacation | Co-op |  |
| CS 4800 | 4 | CS 1210 | 1 |  |  |
| HIST 2301 | 4 | CS 3200 | 4 |  |  |
| HIST 2302 | 1 | History Elective or Integrative 3 | 4 |  |  |
| ECON 2350, POLS 2400, PSYC 2320, SOCL 2320, ENVR 3300, or ENVR 5260 | 4 | History <br> Elective or Integrative 4 | 4 |  |  |
|  | 17 |  | 18 | 0 | 0 |


|  | Elective | 4 |
| :--- | ---: | ---: |
|  | 0 | 16 |
| Total Hours: 136 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 <br> and CS 1801 | Vacation |  |  |  |
| CS 2500 2510 <br> and CS 2501 2511 | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 <br> History <br> Elective or <br> Integrative 1 | 4 |  |  |
| ENGW 1111 | 4 <br> History <br> Elective or <br> Integrative 2 | 4 |  |  |
| HIST 1200 | 1 | 4 | 17 | 0 |


| Year 3 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 1 | 4 | Elective | 4 Co-op |  |
|  |  | History <br> Elective or Integrative 5 | 4 | Elective | 4 |  |
|  |  | SOCL 4528, 3485, 1280, ANTH 3418, PHIL 1145, or IA 5240 | 4 |  |  |  |
|  |  | Elective | 4 |  |  |  |
|  |  | THTR 1170 | 1 |  |  |  |
|  | 0 |  | 17 |  | 8 | 0 |


| Year 4 |  |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | History <br> Elective or <br> Integrative 6 | 4 Elective | 4 |  |
|  | Elective | 4 |  | 0 |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :--- | ---: |
| Co-op | CS Elective 3 | 4 |
|  | History <br> Capstone <br> Seminar <br> or Senior <br> Project | 4 |
|  | History <br> Elective or <br> Integrative 7 | 4 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 3500 | 4 Co-op | Co-op | Vacation |  |
| CS 4800 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| HIST 2301 | 4 |  |  |  |
| HIST 2302 | 1 |  |  | 0 |
| ECON 2350, <br> POLS 2400, <br> PSYC 2320, <br> ENVR 3300, <br> or ENVR <br> 5260 | 4 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 2800 <br> and CS 2801 | 5 Co-op | Co-op | Elective | 4 |
| CS 3200 | 4 |  | Elective | 4 |
| History <br> Elective or <br> Integrative 3 | 4 |  |  |  |
| History <br> Elective or <br> Integrative 4 | 4 |  |  |  |
| THTR 1170 | 1 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| History | 4 |  | Elective | 4 |
| Elective or |  |  |  |  |
| Integrative 5 |  |  |  |  |



Total Hours: 136

## Computer Science and Interactive Media, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science |  |  |
| CS 1200 | Computer Science/Information Science | 1 |
| CS 1210 | Overview 1 |  |
| Computer Science/Information Science | 1 |  |
| Computer Science Fundamental Courses |  |  |

Computer Science Fundamental Courses
A grade of C - or higher is required:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |


| CS 4300 | Computer Graphics | 4 |
| :--- | :--- | :--- |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 4300 | Human Computer Interaction | 4 |
| Computer Science | Senior Seminar |  |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |

## Design Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| ARTH 1100 | Interactive Media and Society | 4 |
| ARTD 2100 | Narrative Basics | 4 |
| or ARTG 1250 | Design Process Context and Systems |  |
| ARTG 2260 | Programming Basics | 4 |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools | 5 |
| ARTG 4700 | Interaction Team Degree Project 1 | 4 |
| ARTG 4701 | Interaction Team Degree Project 2 | 4 |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| Complete one of the following: |  | 5 |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |

## Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| MATH 1260 | Math Fundamentals for Games | 4 |

## Computing and Social Issues

Code Title Hours
Complete one of the following: 4

| PHIL 1145 | Technology and Human Values |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Creative Industries Electives

Code Title Hours
Complete five courses from the following lists: ..... 20-25

Game Design

| GAME 1110 | Games and Society |
| :--- | :--- |
| GAME 2200 | Games and Learning |
| GAME 2500 | Foundations of Game Design |
| GAME 3300 | Game Interface Design |
| GAME 3400 | Level Design and Game Architecture |
| GAME 3700 | Rapid Idea Prototyping for Games |


| GAME 3800 | Game Concept Development and Production |
| :---: | :---: |
| GAME 3899 | Topics in Game Design |
| Art and Design |  |
| ARTH 1111 | Global Art and Design History: Renaissance to Modern |
| ARTH 2210 | Modern Art and Design History |
| ARTH 2211 | Contemporary Art and Design History |
| ARTH 2212 | Survey of the Still and Moving Image |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |
| Animation |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |
| ARTD 3470 | Animation 1 |
| ARTD 3471 | Virtual Environment Design |
| ARTD 3472 | Character Design for Animation |
| ARTD 3473 | Animation for Games |
| ARTD 4570 | Animation 2 |
| ARTD 4575 | Animation 3 |
| ARTD 4577 | Digital Sculpture and Model Making |
| Video |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |
| ARTD 3480 | Video: Sound and Image |
| ARTD 5582 | Collaborative Video and Community Engagement |
| ARTD 4682 | Video in Context: Video and Social Change |
| Photography |  |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |
| ARTD 3460 | Photography 1 |
| ARTD 4565 | Photography 2 |
| ARTD 4661 | Alternative Photographic Processes |
| Graphic Design |  |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools |
| ARTG 2252 | Graphic Design 1 |
| ARTG 3350 | Typography 2 |
| Interactive Media |  |
| ARTD 2200 | Interactive Narrative |
| ARTG 2300 | Business Literacy for Design and Media |
| ARTG 3250 | Physical Computing |
| ARTG 3500 | Transmedia Design |
| ARTG 3700 | Interaction Design 2: Mobile |
| Computer Science |  |
| CS 3200 | Database Design |
| CS 3520 | Programming in C++ |
| CS 3540 | Game Programming |
| CS 3650 | Computer Systems |


| CS 3700 | Networks and Distributed Systems |
| :--- | :--- |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4150 | Game Artificial Intelligence |
| CS 4400 | Programming Languages |
| CS 4550 | Web Development |
| CS 4850 | Building Game Engines |
| CS 4910 | Computer Science Topics |
| CS 4991 | Research |
| CS 4992 | Directed Study |
| CS 4993 | Independent Study |
| Psychology | Sensation and Perception |
| PSYC 3452 | Psychology of Language |
| PSYC 3464 | Cognition |
| PSYC 3466 | Calculus 1 for Science and Engineering |
| Mathematics | Calculus 2 for Science and Engineering |
| MATH 1341 | Calculus 3 for Science and Engineering |
| MATH 1342 | Linear Algebra |
| MATH 2321 | Probability and Statistics |
| MATH 2331 | Differential Equations and Linear |
| MATH 3081 | Algebra for Engineering |
| MATH 2341 |  |

## Computer Science English Requirement

Code Title Hours

## College Writing

ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines
ENGW 3302 Advanced Writing in the Technical 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

Code Title Hours
Complete five general electives. 20

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Major GPA Requirements

Minimum 2.000 GPA required in all CS, IS, and IM required courses

## Program Requirement

136 total semester hours required

## Plan of Study

## Four Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 <br> and CS 2511 | 5 CS 3500 | 4 |


| ARTF 1122 <br> and <br> ARTF 1123 | 5 |  |  |
| :--- | :--- | :--- | :--- |
|  | 19 | 19 | 8 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ARTG 2260 | 4 Co-op 1 | Co-op 1 | Elective | 4 |
| MATH 1260 | 4 |  | Elective | 4 |
| PSYC 1101 | 4 |  |  |  |
| ARTD 2100 <br> or ARTG <br> 1250 | 4 |  |  |  |
| CS 1210 | 1 |  |  | 8 |

Year 3

Fall $\quad$ Hours Spring $\quad$ Hours Summer 1 | Hours Summer 2 |
| :---: | Hours

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| CS 4500 | 4 ARTG 4701* | 4 Elective | 4 |
| ARTG 4700* | 4 Computing and Social Issues | 4 Elective | 4 |
| Creative <br> Industries <br> Elective 2 | 4 Creative Industries Elective 4 | 4 |  |
| Creative Industries Elective 3 | 4 Creative Industries Elective 5 | 4 |  |
| 16 |  | 16 | 8 |

Total Hours: 137

Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 <br> and CS 2511 | 5 CS 3500 | 4 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ARTG 2260* | 4 Co-op 1 | Co-op 1 | Elective | 4 |
| MATH 1260 | 4 |  | Elective | 4 |
| PSYC 1101 | 4 |  |  |  |
| ARTD 2100 <br> or ARTG <br> 1250 | 4 |  |  |  |
| CS 1210 | 1 |  |  | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| IS 4300 | 4 Co-op 2 | Co-op 2 |  |
| ARTG 2400 <br> and | 5 |  |  |
| ARTG 2401* |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| ENGW 3302 | 4 Co-op 3 | Co-op 3 |  |
| Elective | 4 |  |  |
| Creative <br> Industries | 4 |  |  |
| Elective 2 | 4 |  |  |
| Creative <br> Industries | 46 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| CS 4500 | 4 ARTG 4701 | 4 |
| ARTG 4700* | 4 Computing <br> and Social <br> Issues | 4 |
|  |  |  |


| Creative <br> Industries <br> Elective 4 | Creative <br> Industries | 4 |
| :--- | :---: | :---: |
| Elective | Elective 5 |  |
|  | 4 Elective | 4 |

Total Hours: 137

* Indicates course must be taken in the semester listed.


## Computer Science and Journalism, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Computer Science Courses |  |
| :---: | :---: |
| Code | Title |
| Computer Science Overview |  |
| CS 1200 | Computer Science/Information Science Overview 1 |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation |

Computer Science Fundamental Courses
A grade of C - or higher is required:

| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |

## Computer Science Elective Courses

Complete three courses from the following ranges:
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900
At least one of these three courses must be from the
following list:

| IS 4200 | Information Retrieval |
| :--- | :--- |
| IS 4300 | Human Computer Interaction |
| IS 4700 | Social Information Systems |

## Journalism Major Requirements

Students transferring from outside institutions must complete a minimum of five 4-credit journalism courses at Northeastern, and these must include:

| Code | Title | Hours |
| :---: | :---: | :---: |
| JRNL 2201 | Journalism 2: Intermediate Reporting |  |
| JRNL 2301 | Visual Storytelling in Journalism |  |
| JRNL 4650 | Journalism Ethics and Issues |  |
| Code | Title | Hours |
| Journalism Courses |  |  |
| A grade of C or higher is required: |  |  |
| JRNL 1101 | Journalism 1: Fundamentals of Reporting | 4 |
| JRNL 2201 | Journalism 2: Intermediate Reporting | 4 |
| JRNL 2301 | Visual Storytelling in Journalism | 4 |
| JRNL 3610 | Digital Storytelling and Social Media | 4 |
| Required Journalism |  |  |
| JRNL 1150 | Interpreting the Day's News | 4 |
| JRNL 2350 | History of Journalism | 4 |
| JRNL 3550 | Law of the Press | 4 |
| JRNL 4650 | Journalism Ethics and Issues | 4 |
| Journalism Electives |  |  |
| Complete two | courses. | 8 |
| Journalism-Related Requirement |  |  |
| HIST 1130 | Introduction to the History of the United States | 4 |

## Mathematics Requirement

| Code | Title | Hours |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| Computing and Social Issues |  |  |
| Code | Title | Hours |
| Complete one of the following: |  | 4 |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |

## Writing Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines
JRNL 2301 Visual Storytelling in Journalism 4

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.
Code Title

Complete seven general electives.
Hours

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and JRNL courses

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1210 | 1 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3500 | 4 |  |  |  |
| JRNL 2201 | 4 |  |  |  |
| MATH 1341 | 4 |  | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3200 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| JRNL 2301 | 4 |  |  |  |
| Elective | 4 |  | 0 | 8 |
|  | 16 |  |  |  |
| Year 4 |  |  | Hours Summer 1 | Hours Summer 2 | Hours


| Computer <br> science <br> elective | 4 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Elective | 4 | 0 | 0 | 8 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| JRNL 3550 | 4 CS 4000 | 1 |
| Journalism <br> elective | 4 CS 4500 | 4 |
| Computer <br> science <br> elective | 4 JRNL 4650 | 4 |
| Computer <br> science <br> elective | 4 Journalism |  |
| elective |  |  |


| Computing <br> and social <br> issues | 4 |
| :---: | :---: |
| 16 | 17 |

Total Hours: 134

## Computer Science and Linguistics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| CS 2500 and CS 2501 | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 (Integrative course) | 5 |

## Computer Science Required Courses

| CS 3500 | Object-Oriented Design | 4 |
| :---: | :---: | :---: |
| CS 3800 | Theory of Computation (Integrative course) | 4 |
| CS 4100 | Artificial Intelligence (Integrative course) | 4 |
| CS 4120 | Natural Language Processing (Integrative course) | 4 |
| CS 4400 | Programming Languages (Integrative course) | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| CS 4000 <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Elective Course |  |  |
| With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as upper-division electives. |  |  |
| Complete one course from the following range: |  | 4 |
| CS 2600 to CS 7999 but not CS 5010 |  |  |
| IS 2000 to IS 7999 but not IS 4900 |  |  |

## Linguistics Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| Intermediate/Advanced Linguistics |  |  |
| LING 2350 | Linguistic Analysis (Integrative course) | 4 |
| LING 3412 | Language and Culture | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3450 | Syntax (Integrative course) | 4 |
| Intermediate/Advanced Linguistics Elective |  |  |
| LING 3424 | Morphology | 4 |
| or LING 3452 | Semantics |  |
| Psychology Requirements |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3464 | Psychology of Language | 4 |

## Laboratory/Directed Study

Complete one of the following: 4

| LING 4891 | Research Seminar in Linguistics |
| :--- | :--- |
| LING 4991 | Directed Study Research |
| LING 4996 | Experiential Education Directed Study |
| PSYC 4610 | Laboratory in Psycholinguistics |
| Linguistics Elective |  |
| Complete one of the following: |  |


| DEAF 2700 | ASL Linguistics |
| :--- | :--- |
| LING 3402 | African-American English |
| LING 3424 | Morphology |
| LING 3428 | African Languages |
| LING 3430 | Applied Linguistics |
| LING 3432 | Romance Linguistics |
| LING 3434 | Bilingualism |
| LING 3436 | Structure of Spanish |


| LING 3438 | Structure of French |
| :--- | :--- |
| LING 3442 | Sociolinguistics |
| LING 3444 | Linguistics in Education |
| LING 3448 | Issues in Linguistics |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |
| LING 3460 | Historical Linguistics |
| LING 4654 | Seminar in Linguistics |
| PHIL 1215 | Symbolic Logic |
| PHIL 4540 | Philosophy of Language |
| PSYC 3466 | Cognition |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| With prior approval, directed study research, independent |  |
| study, and Honors Project courses can also be counted: |  |
| LING 4891 | Research Seminar in Linguistics |
| LING 4970 | Junior/Senior Honors Project 1 |
| LING 4971 | Junior/Senior Honors Project 2 |
| LING 4991 | Directed Study Research |
| LING 4993 | Independent Study |
| PSYC 4991 | Directed Study Research |
| Seminar Requirement |  |
| LING 4654 | Seminar in Linguistics |
| or PSYC 4658 | Seminar in Psycholinguistics |


| Mathematics Requirement <br> Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus | Calculus 1 for Science and Engineering <br> MATH 1341 | 4 |
|  | (A grade of C- or higher is required) |  |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society <br> ANTH 3418Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

Computer Science English Requirement
Code Title Hours College Writing
ENGW 1111 First-Year Writing ..... 4

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Complete four general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 CS 2800 | 4 |  |  |
| CS 1800 | 4 CS 2801 | 1 |  |  |
| CS 1801 | 0 LING 2350 | 4 |  | 0 |
| LING 1150 | 4 PSYC 1101 | 4 |  |  |
| ENGW 1111 | 4 |  | 0 |  |
|  | 18 | 18 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 1210 | 1 Vacation | 0 Co-op | 0 |
| MATH 1341 | 4 CS 3800 | 4 |  |  |
| LING 3412 | 4 CS 4800 | 4 |  |  |
| PSYC 3464 | 4 LING 3422 | 4 |  |  |
|  | PSYC 2320 |  |  |  |
|  | or 3464 |  |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4120 | 4 Elective | 4 Co-op | 0 |
|  | CS 4400 | 4 Elective | 4 |  |
|  | LING 3450 | 4 |  |  |
|  |  |  |  |  |


| ENGW 3302 | 4 |  |  |
| :--- | ---: | ---: | ---: |
| 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 CS 4100 | 4 Elective | 4 Co-op | 0 |
|  | Computer science undergraduat elective | 4 Elective | 4 |  |
|  | LING lab | 4 |  |  |
|  | LING 3424, 3452 , or Linguistics elє | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | LING | 4 |
| seminar |  |  |
|  | LING 3452, | 4 |
|  | 3424, or <br> Linguistics elf |  |
|  | SOCL 4528 | 4 |
|  | 0 | 17 |

Total Hours: 134

## Computer Science and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
Computer Science Courses
Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 | Discrete Structures | 4 |
| :--- | :--- | :--- |
| and CS 1801 | and Recitation for CS 1800 (Integrative <br> course) |  |



|  | Elective | 4 |  | 0 |
| :--- | :---: | :---: | :---: | ---: |
|  | 16 | 17 |  | 0 |
| Year 3 |  |  | Hours Summer 1 | Hours Summer 2 |
| Fall | Hours Spring | Hours |  |  |
| Co-op | 0 CS 3800 | 4 Elective | 4 Co-op | 0 |
|  | CS 4300 | 4 Elective | 4 |  |
|  | MATH 3175 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |


| Elective | 4 |  |  | 0 |
| :--- | :---: | :---: | :---: | ---: |
|  | 17 | 0 |  | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MATH 2331 | 4 |  | Elective | 4 |
| MATH 3081 | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |



## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 SOCL 4528 | 4 |
|  | CS 4000 | 1 |
|  | CS <br> undergraduate <br> elective | 4 |
|  | MATH <br> undergraduatı <br> elective | 4 |
| MATH <br> undergraduate <br> elective | 4 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4300 | 4 |  | Elective | 4 |
| MATH 3527 | 4 |  |  |  |
| ENGW 3302 | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4500 | 4 SOCL 4528 | 4 |
| MATH 3175 | 4 CS 4000 | 1 |
| MATH | 4 CS | 4 |
| undergraduate <br> elective | undergraduate <br> elective | 4 |
| CS | 4MATH <br> undergraduatı <br> elective | 4 |
| elective | MATH <br> undergraduate <br> elective | 4 |


| 16 | 17 |
| :--- | :--- |
| Total Hours: 134 |  |

Total Hours: 134

## Computer Science and Mathematics, BS/MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Computer Science Courses
Code Title
Hours

## Computer Science Overview



## Major GPA Requirement <br> Minimum 2.000 GPA required in all CS and IS courses <br> Graduate Course Work To Be Taken As An Undergraduate Student

Minimum 3.000 GPA required in all graduate courses
Code Title Hours

Master's-Level Required Courses

| CS 5400 | Principles of Programming Language | 4 |
| :--- | :--- | :--- |
| CS 5600 | Computer Systems | 4 |
| CS 5800 | Algorithms | 4 |

Master's-Level Computer Science Elective Course
Complete one course in the following range: 4
CS 5000 to CS 7999 but not CS 5010

## Entrance Requirements

- Evaluation for entrance may be requested after a minimum of 3 semesters of CCIS coursework.
- The GPA in CCIS courses must be at least 3.25 .
- The overall GPA must be at least 3.25 .
- Requests for entrance to the BS/MS can be via email to advising@ccs.neu.edu. If requesting via email, include your name, ID, and which BS/MS program you wish to enter.


## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |

IA 5240 Cyberlaw: Privacy, Ethics, and Digital Rights

## Computer Science English Requirement

| Mathematics Courses |  |  |
| :--- | :--- | ---: |
| Code <br> Calculus Courses | Title | Hours |
| MATH 1341 | Calculus 1 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |


| Mathematics Courses |  |  |
| :--- | :--- | :--- |
| MATH 2331 | Linear Algebra (Integrative course) | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
|  | Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 3175 | Group Theory | 4 |

## Mathematics Electives

Complete three courses in the following range:
MATH 3001 to MATH 4999 but not MATH4000

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines | Advanced Writing in the Technical <br> Professions <br> or ENGW 3302 33 | Interdisciplinary Advanced Writing in the <br> Disciplines |


| Required General Electives |  |
| :--- | ---: |
| Code $\quad$ Title | Hours |
| Complete six general electives. | 24 |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirements

133 total semester hours required for the bachelor's degree

## Plan of Study

Five plus One Years, Three co-ops

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 5400 | 4 Elective | 4 Co-op | 0 |
|  | CS 4300 | 4 Elective | 4 |  |
|  | MATH 3175 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 CS 4500 | 4 Vacation | 0 Co-op | 0 |
|  | CS 5600 | 4 |  |  |
|  | MATH 3527 | 4 |  |  |
|  | Math <br> Undergraduat elective | 4 |  |  |
|  | 0 | 16 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4000 | 1 Vacation | 0 Vacation | 0 |
|  | SOCL 4528 | 4 |  |  |
|  | Math | 4 |  |  |
|  | Undergraduate <br> elective |  |  |  |
|  | Masters <br> level CS <br> elective | 4 |  |  |


|  | Math <br> Undergraduate elective |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 0 | 17 | 0 | 0 |
| Year 6 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Masters level CS elective | 4 Masters level CS elective | 4 |  |  |
| Masters level CS elective | 4 Masters level CS elective | 4 |  |  |
|  | 8 | 8 |  |  |
| Total Hours: 150 |  |  |  |  |
| Comp Comp | Science and ion and Techn | sic with gy, BS |  |  |

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Computer Science Courses
Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses
A grade of C - or higher is required in each course:
CS $1800 \quad$ Discrete Structures
and CS 1801 and Recitation for CS 1800

| and CS 2501 | and Lab for CS 2500 |
| :--- | :--- |
| CS 2510 | Fundamentals of Computer Science 2 |


| and CS 2511 | and Lab for CS 2510 | 5 |
| :--- | :--- | :--- |
| CS 2800 | Logic and Computation | 5 |

and CS 2801 and Lab for CS 2800

| Computer Science Required Courses | 4 |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 4300 | Human Computer Interaction <br>  (Integrative) |  |

## Computer Science Senior Seminar

| CS 4000 Senior Seminar <br> or THTR 1170 The Eloquent Presenter | 1 |
| :--- | :--- |
| Computer Science Elective Courses | 8 |
| Complete two courses in the following ranges: |  |
| CS 2600 to CS 7999 but not CS 5010 |  |
| IS 2000 to IS 7999 but not IS 4900 |  |

## Music Composition and Technology Courses

| Code <br> Music Theory | Title | Hours |
| :--- | :--- | ---: |
| MUSC 1201 | Music Theory 1 |  |
| MUSC 1202 | Music Theory 2 | 4 |
| Music Composition |  | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUST 2315 | History of Electronic Music | 4 |
| MUST 3422 | Music Composition Seminar 2 | 4 |
| or MUSC 2420 | Music Composition Seminar 1 |  |
| Music Technology |  | 4 |
| MUST 1220 | Introduction to Music Technology | 4 |
| MUSC 3560 | Historical Traditions: Music since 1900 | 4 |
| MUST 4520 | Interactive Real-Time Performance |  |

Electronic Composition and Performance
Complete the following two courses in order:

| MUST 4610 | Composition for Electronic Instruments | 4 |
| :--- | :--- | :--- |
| MUST 4611 | Music Technology Capstone/Senior | 4 |
|  | Recital |  |


| Music Composition and Technology Integrative Course |  |  |
| :--- | :--- | :--- |
| MUST 3421 | Digital Audio Processing | 4 |

Composition Lessons
Complete the following course four times:
MUSC 1903 Composition Lessons

## Music Elective Requirements <br> Complete two courses in the following ranges:

MUST 2320 to MUST 4993
MUSC 2000 to MUSC 4993

## Foundations of Psychology

## Code Title

PSYC 1101 Foundations of Psychology
Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |

## Computer Science English Requirement <br> Code Title

Hours

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | ---: |
| Advanced Writing in the Disciplines | 4 |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions | 4 |

## Required General Electives

| Code | Title |
| :--- | ---: |
| Complete four general electives. | Hours |

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Integrating Knowledge and Skills Through Experience
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Program Requirement

137 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 CS 2511 | 1 |  |  |
| CS 1801 | 0 CS 2800 | 4 |  |  |
| CS 2500 | 4 CS 2801 | 1 |  |  |
| CS 2501 | 1 ENGW 1111 | 4 |  |  |
| MUSC 1201 <br> (*) | 4 MUST 1301 <br> (*) | 4 |  |  |
| MUSC 1202 <br> (*) | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 3200 | 4 Vacation | 0 Vacation | 0 |
| MUST 1220 <br> $(*)$ | 4 CS 4800 | 4 |  |  |
| PSYC 1101 | 4 MUST 3421 <br> $(*)$ | 4 |  |  |
| MUSC 1903 <br> $(*)$ | MUSC 1903 <br> $(*)$ | 1 |  |  |


| Elective | 4 Elective | 4 |  |  |
| :--- | :---: | ---: | :--- | :--- |
| 17 | 17 | 0 | 0 |  |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1210 | 1 Co-op | 0 Co-op | 0 Vacation | 0 |
| IS 4300 | 4 |  |  |  |
| MUSC 3560 <br> (*) | 4 |  |  |  |
| MUST 2315 (*) Offered every other fal | 4 |  |  |  |


| MUSC 1903 | 1 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| ENGW 3302 | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MUST 4520 <br> (*) | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MUST 3422 or MUSC 2420 | 4 |  |  |  |
| Computer <br> Science <br> Elective | 4 |  |  |  |
| Music Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5


Total Hours: 138
*Indicates course must be taken in the term listed.

## Computer Science and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

| CS 1800 <br> and CS 1801 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | ---: |
| CS 2500 <br> and CS 2501 | Fundamentals of Computer Science 1 <br> and Lab for CS 2500 | 5 |
| CS 2510 Fundamentals of Computer Science 2 <br> and CS 2511 and Lab for CS 2510 <br> CS 2800  <br> and CS 2801 Logic and Computation <br> and Lab for CS 2800 5 5 |  |  |

Computer Science Required Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Elective Courses

Complete two upper-division computer science courses from 8 the following ranges:

$$
\begin{aligned}
& \text { CS } 2500 \text { to CS } 7999 \text {, but not CS } 5010 \\
& \text { IS } 2000 \text { to IS } 7999 \text {, but not IS } 4900 \\
& \text { DS } 2000 \text { to DS } 7999 \text {, but not DS } 4900
\end{aligned}
$$

## Presentation Requirement

THTR $1170 \quad$ The Eloquent Presenter 1

## Philosophy Courses



## Philosophy Electives

Complete three additional 4 SH courses from the PHIL list.

## Philosophy Capstone

Note: You must choose distinct courses to satisfy Intermediate/Advanced Elective and Capstone.

| Complete one course from the following: |  |
| :--- | :--- |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |

## Integrative Course Requirement (No additional credit required)

| Code | Title | Hours |
| :---: | :--- | :--- |
| CS 3800 | Theory of Computation |  |
| PHIL 4515 | Advanced Logic |  |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses
Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing |  |
| or ENGW 1102 | First-Year Writing for Multilingual Writers |  |

Advanced Writing in the Disciplines
Complete one course from the following:

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| ENGW 3309 | Advanced Writing in the Humanities |
| ENGW 3315 | Interdisciplinary Advanced Writing in <br> the Disciplines |

## Required General Electives <br> Code Title

Hours
Complete eleven general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing-Intensive in the Major
- Interpreting Culture
- Understanding Societies and Institutions
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

Four Years, 2 Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | 4 | $\text { CS } 2510$ <br> and CS 2511 | 5 | CS 3500 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 | Elective | 4 |  |
| CS 1200 |  | PHIL 2325, POLS 2325, or PHIL 2330 | 4 |  |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |  |
| PHIL 1115 or $1215$ | 4 |  |  |  |  |  |
|  | 18 |  | 18 |  | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 4800 | 4 CS Elective 1 | $\begin{aligned} & 4 \text { ENGW 3302, } \\ & 3309 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
| PHIL 1145 | 4 PHIL <br> Elective 2 | 4 Elective | 4 |  |
| PHIL <br> Elective 1 | 4 PHIL <br> Elective 3 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | CS 1210 | 1 |  |  |
|  | 16 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :---: | :---: | ---: |
| Co-op | CS 3800 | 4 Elective | 4 Co-op |  |
|  | CS Elective 2 | 4 Elective | 4 |  |
|  | PHIL 4515 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | THTR 1170 | 1 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| Co-op | CS 4500 | 4 Elective (if needed) | 4 |
|  | PHIL <br> Intermediate/ <br> Advanced <br> Elective | 4 Elective (if needed) | 4 |
|  | PHIL <br> Capstone | 4 |  |
|  | Elective | 4 |  |
|  | 0 | 16 | 8 |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall



## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 3500 | 4 CS Elective 1 | 4 Vacation | Co-op |  |
| CS 4800 | $4 \text { PHIL }$ <br> Elective 1 | 4 |  |  |
| PHIL 1145 | 4 PHIL <br> Elective 2 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | CS 1210 | 1 |  |  |
|  | 16 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CS 3800 | $\begin{aligned} & 4 \text { ENGW 3302, } \\ & 3309 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
|  | PHIL 4515 | 4 Elective | 4 |  |
|  | PHIL <br> Elective 3 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | THTR 1170 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | PHIL <br> Intermediate/ <br> Advanced <br> Elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CS 4500 | 4 |
|  | PHIL | 4 |
|  | Capstone |  |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |
|  |  |  |
|  |  |  |

[^6]
## Computer Science and Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer ScienceOverview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| CS 4000 <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |

## Physics Courses

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| PHYS 1161 <br> and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 | 5 |
| PHYS 1165 <br> and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 | 5 |
| Intermediate Physics | Modern Physics |  |
| PHYS 2303 | Thermodynamics and Statistical <br> Mechanics | 4 |
| PHYS 2305 2371 | Electronics <br> and Lab for PHYS 2371 (Integrative <br> course) | 4 |



## Computer Science Elective

The computer science elective is not required if the student
has completed the computer science capstone (above).
With advisor approval, a directed study, project study, or appropriate graduate-level course may be taken as a computer science elective.
Complete one course from the following ranges:
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Physics Elective

Only one physics elective is required if the student has completed the physics capstone (above).
Complete two courses from the following range:

Mathematics Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus | Calculus 1 for Science and Engineering |  |
| MATH 1341 | (a grade of C- or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Additional Mathematics Requirements |  |  |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| MATH 4525 | Applied Analysis |  |

## Computing and Social Issues

Code TitleHoursComplete one of the following:4

| PHIL 1145 | Technology and Human Values |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> Technopolitics |
| Cyberlaw: Privacy, Ethics, and Digital |  |
|  | Rights |

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title Hours

Complete six general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 CS 2511 | 1 |  |  |
| CS 2500 | 4 MATH 1342 | 4 |  |  |
| CS 2501 | 1 PHYS 1165 | 4 |  |  |
| MATH 1341 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 ENGW 1111 | 4 |  | 0 |
| PHYS 1162 | 1 |  |  | 0 |
| CS 1200 | 1 | 18 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 2800 | 4 CS 4800 | 4 Vacation | 0 Co-op | 0 |
| CS 2801 | 1 PHYS 2305 | 4 |  |  |
| CS 3500 | 4 MATH 2321 | 4 |  |  |
| PHYS 2303 | 4 MATH 2341 | 4 |  |  |
| PHYS 2371 | 3 CS 1210 | 1 |  | 0 |
| PHYS 2372 | 1 |  | 0 |  |
|  | 17 | 17 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3800 | 4 PHYS 3600 | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | PHYS 3602 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4500 | 4 Elective | 4 Co-op | 0 |
|  | MATH 4525 | 4 Elective | 4 |  |
| PHYS <br> undergraduate <br> elective | 4 |  |  |  |
| SOCL 4528 | 4 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CS <br> undergraduate <br> elective | 4 |
|  | CS 4000 | 1 |
|  | PHYS <br> undergraduate <br> elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 17 |  |

Total Hours: 136

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 CS 2511 | 1 |  |  |
| CS 2500 | 4 MATH 1342 | 4 |  |  |
| CS 2501 | 1 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 ENGW 1111 | 4 |  |  |
| CS 1200 | 1 |  |  | 0 |
| MATH 1341 | 4 | 18 | 0 |  |
|  | 19 |  |  |  |


| Year 2 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |  |
| CS 2800 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |  |
| CS 2801 | 1 |  |  |  |  |
| CS 3500 | 4 |  |  |  |  |
| PHYS 2303 | 4 |  |  | 0 |  |
| PHYS 2371 | 3 |  | 0 | 0 |  |
| PHYS 2372 | 1 |  |  |  |  |
| CS 1210 | 1 | 0 | 0 |  |  |
|  | 18 |  |  |  |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 4800 | 4 Co-op | 0 Co-op | 0 PHYS 3600 | 4 |
| MATH 2321 | 4 |  | Elective | 4 |
| MATH 2341 | 4 |  |  |  |
| PHYS 2305 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  | Elective | 4 |
| PHYS 3602 | 4 |  |  |  |
| ENGW 3302 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 5

| Fall | Hours Spring Hound | Hours |
| :---: | :---: | :---: |
| CS 4500 | 4 CS undergraduate elective | 4 |
| MATH 4525 | 4 CS 4000 | 1 |
| PHYS undergraduate elective | 4 PHYS undergraduate elective | 4 |
| SOCL 4528 | 4 Elective | 4 |
|  | Elective | 4 |
|  | 16 | 17 |
| Total Hours: 136 |  |  |

## Computer Science and Sociology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 2000 | Principles of Information Science | 4 |
| Computer Science Writing Intensive Requirement |  |  |
| Complete one | from the following: | 4 |
| CS 4500 | Software Development |  |
| IS 3500 | Information System Design and Development |  |
| DS 4200 | Information Presentation and Visualization (Take DS 4100 either as a prerequisite of or concurrently with DS 4200.) |  |

## Computer Science Elective Courses

Complete two upper-division computer science courses from 8
the following ranges:
CS 2500 to CS 7999, but not CS 5010
IS 2000 to IS 7999, but not IS 4900
DS 2000 to DS 7999, but not DS 4900

## Presentation Requirement

## THTR 1170 The Eloquent Presenter

## Sociology Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Sociology Required Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Sociology Electives |  | 12 |
| Complete three Sociology electives from the following ranges: | 12 |  |

Sociology Elective A: Complete one course from
SOCL 1000 to 1999.
Sociology Elective B: Complete one course from SOCL
2000 to 3999.
Sociology Elective C: Complete one course from SOCL
4000 to 4999.

## Sociology Required Capstone

SOCL 4600 Senior Seminar
4

## Integrative Course Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one course from the following: | 4 |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and |  |
|  | Technopolitics |  |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| or ENGW 1102 | First-Year Writing for Multilingual Writers |  |

Advanced Writing in the Disciplines
Complete one course from the following: 4

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| ENGW 3308 | Advanced Writing in the Social <br> Sciences |
| ENGW 3315 | Interdisciplinary Advanced Writing in <br> the Disciplines |

## Required General Electives

| Code | Title |
| :--- | ---: | Hours

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing-Intensive in the Major
- Writing in the First Year
- Advanced Writing in the Disciplines
- Interpreting Culture
- Understanding Societies and Institutions
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

## Four Years, Two Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 CS Elective 1 | $\begin{aligned} & 4 \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
| CS 4800 | 4 CS 1210 | 1 Elective | 4 |  |
| SOCL 2321 | 4 SOCL 2300 | 4 |  |  |
| ANTH 2305 | 4 Sociology Elective A | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 17 | 17 | 8 | 0 |



## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| Co-op | CS 4500, IS <br> 3500, or DS <br> 4200 | Elective (if <br> needed) | 4 |
|  | SOCL 4600 | Elective (if <br> needed) | 4 |
|  | Sociology <br> Elective C | 4 |  |
|  | Elective | 4 | 8 |

Total Hours: 134

## Four Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 <br> and CS 1801 | 4 CS 2510 <br> and CS 2511 | 5 CS 3200 | 4 Vacation |  |
| CS 2500 <br> and CS 2501 | 5 IS 2000 | 4 CS 3500 | 4 |  |


| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 8 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 2800 and CS 2801 | 5 Co-op | Co-op | $\begin{aligned} & \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| CS 1210 | 1 |  |  |  |
| SOCL 2321 | 4 |  |  |  |
| ANTH 2305 | 4 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| SOCL 2300 | 4 |  | Elective | 4 |
| Sociology | 4 |  |  |  |
| Elective A |  |  |  |  |
| Elective | 4 |  |  | 8 |
| THTR 1170 | 1 | 0 | 0 | 8 |
|  | 17 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| CS Elective 2 | 4 CS 4500, IS <br> 3500, or DS <br> 4200 | 4 Elective (if <br> needed) | 4 |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 3500 | 4 CS 2800 <br> and CS 2801 | 5 Vacation | Co-op |  |
|  | 4 CS 3200 | 4 |  |  |
| CS 4800 | 4 CS 1210 | 1 |  |  |
| SOCL 2321 |  |  |  |  |

$\left.\begin{array}{lrcll}\text { ANTH } 2305 & 4 \text { SOCL 2300 } & 4 & & \\ \hline & \text { Sociology } \\ \text { Elective A }\end{array}\right)$

| Year 3 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 1 | $4$ | $\begin{aligned} & \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
|  |  | Sociology <br> Elective B | 4 | Elective | 4 |  |
|  |  | SOCL 1280, <br> 3485, 4528, <br> or ANTH <br> 3418 | 4 |  |  |  |
|  |  | Elective | 4 |  |  |  |
|  |  | THTR 1170 | 1 |  |  |  |
|  | 0 |  | 17 |  | 8 | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | Sociology | 4 Elective | 4 |  |
|  | Elective C |  |  |  |
|  | Elective | 4 |  | 0 |
|  | Elective | 4 | 8 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CS 4500, IS | 4 |
|  | 3500, or DS |  |
|  | 4200 |  |
|  | SOCL 4600 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 3500 | 4 Co-op | Co-op | Vacation |  |
| CS 4800 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| SOCL 2321 | 4 |  |  |  |


| ANTH 2305 | 4 |  | 0 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 17 | 0 |  | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Co-op | Co-op | ENGW 3302, <br> 3308, or $3315$ | 4 |
| CS 3200 | 4 |  | Elective | 4 |
| SOCL 2300 | 4 |  |  |  |
| Sociology <br> Elective A | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| Sociology | 4 |  | Elective | 4 |
| Elective B |  |  |  |  |
| SOCL 1280, | 4 |  |  |  |
| 3485,4528, <br> or ANTH <br> 3418 |  |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| CS Elective 2 | $\begin{aligned} & 4 \text { CS 4500, IS } \\ & 3500, \text { or DS } \\ & 4200 \end{aligned}$ | 4 |
| Sociology <br> Elective C | 4 SOCL 4600 | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 134

## Information Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title
Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of C - or higher is required in Computer Science Fundamental courses. |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Information Science Required Courses |  |  |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and Development | 4 |
| IS 4800 | Empirical Research Methods | 4 |
| Integrative Courses |  |  |
| MISM 3305 | Information Resource Management | 4 |
| MISM 3404 | Data Communications | 4 |

## Business Courses <br> Code Title Hours

## Required Business Courses

| ACCT 1201 | Financial Accounting and Reporting | 4 |
| :--- | :--- | :--- |
| ACCT 2301 | Managerial Accounting | 4 |
| FINA 2201 | Financial Management | 4 |
| ORGB 3201 | Organizational Behavior | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| MGSC 2301 | Business Statistics | 4 |
| Choose one of the following: ${ }^{1}$ |  |  |
| STRT 4501 | Strategy in Action | 4 |
| STRT 4514 | Internal Case Competition Challenge | 4 |
| STRT 4516 | External Case Competition Challenge | 4 |

${ }^{1}$ Strategy in Action (STRT 4501), Internal Case Competition Challenge (STRT 4514), External Case Competition Challenge (STRT 4516) all satisfy the Capstone Requirement.

## Business Concentration

Complete a four-course business concentration from the following list.
Requirements for the concentrations are listed below (p. 327).

## - Accounting

- Entrepreneurship and Innovation
- Finance
- Management
- Marketing
- Supply Chain Management

Mathematics and Economics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Mathematics |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| or MATH 1231 | Calculus for Business and Economics |  |
| Economics |  | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics |  |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  | Technopolitics |

IA $5240 \quad$ Cyberlaw: Privacy, Ethics, and Digital Rights

## Computer Science English Requirement

Code Title Hours

College Writing
ENGW 1111 First-Year Writing 4

Advanced Writing in the Disciplines
ENGW 3302 Advanced Writing in the Technical 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

Code Title Hours

Complete three general electives.

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Information Science GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

| Business Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN ACCOUNTING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete tw | following: | 8 |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br>  <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION
Code Title

Hours
Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |  |
| :---: | :---: | :---: |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of the following: |  | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |


| ENTR 3217 | Global Family Business Leadership |
| :---: | :---: |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |
| ENTR 3220 | International Entrepreneurship and Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American Business Environment |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

CONCENTRATION IN FINANCE
Code Title Hours

## Required Course

| FINA 3301 | Corporate Finance | 4 |
| :---: | :--- | :--- |
| or FINA 3303 | Investments |  |

## Electives

Complete three of the following: 12

| ENTR 3520 | Impact Investing and Social Finance |
| :---: | :--- |
| or FINA 2720 | Sustainability in the Business Environment |
| FINA 3301 | Corporate Finance (if not selected as a <br> required course) |


| FINA 3303 | Investments (if not selected as a <br> required course) |
| :--- | :--- |
| FINA 4310 | Working Capital Management |
| FINA 4312 | Issues in Corporate Governance |
| FINA 4320 | International Financial Management |
| FINA 4410 | Valuation and Value Creation |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4512 | Financial Risk Management |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4524 | Credit Analysis |


| FINA 4526 | Core Topics in Alternative Investments |
| :--- | :--- |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| MGMT 4501 | Skills for Managerial Success | 4 |
| Electives |  |  |
| Complete three of | following: | 12 |
| MGMT 3302 | Negotiating in Business |  |
| MGMT 3330 | Developing Leaders for Global Sustainability |  |
| MGMT 3340 | Managing Healthcare Organizations: Critical Challenges and New Approaches |  |
| MGMT 3420 | Managing Human Capital |  |
| MGMT 3435 | Social Networks and Organizations |  |
| MGMT 3510 | Managing Global Teams Virtually and Locally |  |
| MGMT 3530 | Project Management |  |
| MGMT 4310 | The Management Practices of Great Organizations |  |
| MGMT 4410 | Human Resources and Workforce Analytics |  |
| MGMT 4603 | Leadership Seminar |  |
| ENTR 2215 | Understanding Family Enterprise |  |

## CONCENTRATION IN MARKETING Code Title Hours

| Code <br> Required Courses |  | Hours |
| :--- | :--- | ---: |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 | Sales Management |
| MKTG 4502 | Marketing in the Service Sector |
| MKTG 4504 | Advertising and Brand Promotion |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |


| CONCENTRATION IN SUPPLY CHAIN MANAGEMENT |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| SCHM 3301 | Global Supply Chain Strategy | 4 |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation Management | 4 |

Elective

| Complete one of the following: |
| :--- |
| SCHM 3308 Supply Chain Analytics <br> SCHM 3320 Demand Planning and Forecasting <br> SCHM 3330 Sustainability and Supply Chain <br> Management <br> SCHM 4401 Advanced Problems in Supply Chain <br> Management |

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 CS 2511 | 1 |  |  |
| CS 2500 | 4 CS 2800 | 4 |  |  |
| CS 2501 | 1 CS 2801 | 1 |  |  |
| CS 1200 | 1 ECON 1116 | 4 |  |  |
| ECON 1115 | 4 Elective | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |
|  | 18 | 18 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 IS 3500 | 4 Vacation | 0 Co-op | 0 |
| CS 3500 | 4 CS 3200 | 4 |  |  |
| ACCT 1201 | 4 ACCT 2301 | 4 |  |  |
| MGSC 2301 | 4 CS 4800 | 4 |  |  |
|  |  |  |  |  |
|  | CS 1210 | 1 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MISM 3404 | 4 ORGB 3201 | 4 Co-op | 0 |
|  | FINA 2201 | 4 MKTG 2201 | 4 |  |
|  | MATH 1341 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 IS 4800 | 4 Elective | 4 Co-op | 0 |
|  | MISM 3305 | 4 Elective | 4 |  |
| Business <br> elective | 4 |  |  |  |
| Business <br> elective | 4 | 8 | 0 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 STRT 4501 | 4 |
|  | SOCL 4528 | 4 |
|  | CS 4000 | 1 |
|  | Business <br> elective | 4 |


| Business <br> elective | 4 |
| :---: | :---: |
| 0 | 17 |

Total Hours: 134

Information Science and Cognitive Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Computer and Information Science Courses

| Code | Title | Hours |
| :--- | :--- | :---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses

| A grade of C - or higher is required: |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4100 | Artificial Intelligence (integrative course) | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Information Science Required Courses |  |  |
| :--- | :--- | :--- |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and <br> Development | 4 |
| IS 4300 | Human Computer Interaction <br> (integrative course) | 4 |
| IS 4800 | Empirical Research Methods | 4 |
| IS 4900 | Information Science Senior Project <br> (integrative course) | 5 |

## Psychology Courses

Code Title
Hours

## Required Courses

PSYC 1101 Foundations of Psychology
4

| PSYC 2320 | Statistics in Psychological Research | 4 |
| :---: | :---: | :---: |
| PSYC 3464 | Psychology of Language | 4 |
| PSYC 3466 | Cognition | 4 |
| Advanced Psychology |  |  |
| PSYC 3452 <br> or PSYC 3458 | Sensation and Perception Biological Psychology | 4 |
| Laboratory in Psychology |  |  |
| Complete one of | following: | 4 |
| PSYC 4610 | Laboratory in Psycholinguistics |  |
| PSYC 4612 | Laboratory in Cognition |  |
| PSYC 4622 | Laboratory in Sensation and Perception |  |

## Seminar in Psychology

Complete one of the following: 4
PSYC $4658 \quad$ Seminar in Psycholinguistics
PSYC 4660 Seminar in Cognition
PSYC 4668 Seminar in Sensation and Perception
PSYC $4674 \quad$ Seminar in Cognitive Neuroscience

## Psychology Electives

Note: Courses satisfying the categories above cannot be reused.
Complete two of the following:

| PSYC 3402 | Social Psychology |
| :--- | :--- |
| PSYC 3450 | Learning and Motivation |
| PSYC 3451 | Learning Principles and Behavior <br> Analysis |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 4512 | Neuropsychology |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4526 | Categorization and Reasoning |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4652 | Seminar in Ethics in Psychology |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4668 | Seminar in Sensation and Perception |
| PSYC 4674 | Seminar in Cognitive Neuroscience |

With prior approval, directed study research and Honors
Project courses can also be counted:

| PSYC 4970 | Junior/Senior Honors Project 1 |
| :--- | :--- |
| PSYC 4971 | Junior/Senior Honors Project 2 |
| PSYC 4991 | Directed Study Research |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Additional Requirement

Code Title Hours

## Calculus

A grade of C - or higher is required:
MATH 1341 Calculus 1 for Science and Engineering 4

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |

## Computer Science English Requirement

| Code Title <br> College Writing  | Hours |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines | Advanced Writing in the Technical <br> ENGW 3302 | Professions <br> Interdisciplinary Advanced Writing in the <br> or ENGW 3315 |

## Required General Electives

## Code Title

Complete seven general electives.
Hours

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 IS 4300 | 4 Vacation | 0 Co-op | 0 |
| CS 3500 | 4 PSYC 3464 | 4 |  |  |
| MATH 1341 | 4 PSYC 3452 | 4 |  |  |
| PSYC 2320 | 4 CS 4800 | 4 |  |  |
|  | CS 1210 | 1 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 IS 3500 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3302 | 4 Elective | 4 |  |
|  | PSYC <br> undergraduate <br> elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4100 | 4 Elective | 4 Co-op | 0 |
|  | IS 4800 | 4 Elertive | 4 |  |
|  | PSYC lab <br> elective | 4 |  |  |
| PSYC <br> undergraduat <br> elective | 4 |  | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 | 5 |
|  | SOCL 4528 | 4 |
|  | PSYC <br> seminar | 4 |
|  | Elective | 4 |
| 0 | 17 |  |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 | CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 | CS 2511 | 1 |  |  |
| CS 2500 | 4 | CS 2800 | 4 |  |  |
| CS 2501 | 1 | CS 2801 | 1 |  |  |
| CS 1200 | 1 | PSYC 3466 | 4 |  |  |
| PSYC 1101 | 4 | Elective | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 Co-op | 0 Co-op | Vacation | 0 |
| CS 3500 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |


| PSYC 2320 | 4 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| CS 1210 | 1 |  |  |  |
|  | 17 | 0 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| IS 4300 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| PSYC 3464 | 4 |  |  |  |
| PSYC 3452 | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 3500 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| ENGW 3302 | 4 |  | Elective | 4 |
| PSYC <br> undergraduate <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4100 | 4 IS 4900 | 5 |
| IS 4800 | 4 SOCL 4528 | 4 |
| PSYC lab <br> elective | 4 PSYC |  |
| seminar | 4 |  |
| PSYC <br> undergraduat <br> elective | 4 Elective | 4 |
|  | 16 | 17 |

Total Hours: 134

## Information Science and Environmental Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Information Science Courses
Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Information Science Required Courses |  |  |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and Development | 4 |
| IS 4800 | Empirical Research Methods (Integrative course) | 4 |

## Environmental Science Courses

Code Title Hours

Required Environmental Science Courses

| ENVR 1101 | Environmental Science | 4 |
| :--- | :--- | :--- |
| ENVR 1200 | Dynamic Earth | 5 |

and ENVR 1201 and Lab for ENVR 1200
ENVR 5210 Environmental Planning 4

| or ENVR 5250 | Geology and Land-Use Planning |  |
| :--- | :--- | :--- |
| ENVR 4900 | Earth and Environmental Science | 1 |

or ENVR 4997 Senior Thesis

| Integrative Course |  |  |
| :--- | :--- | :--- |
| ENVR 3300 | Geographic Information Systems |  |

and ENVR 3301 and Lab for ENVR 3300
Environmental Science Electives
Complete three of the following: 12

| ENVR 1202 | History of Earth and Life |
| :--- | :--- |
| and ENVR 1203 | and Interpreting Earth History |

ENVR $3400 \quad$ Field Geology
ENVR 3410 Environmental Geochemistry
ENVR 3418 Geophysics
ENVR 4106 Coastal Processes
and ENVR 4107 and Lab for ENVR 4106
ENVR 4500 Applied Hydrogeology
and ENVR 4501 and Lab for ENVR 4500
ENVR 4504 Environmental Pollution
ENVR 4505 Wetlands
ENVR 5201 Geologic Field Seminar
ENVR 5242 Ancient Marine Life
and ENVR 5243 and Lab for ENVR 5242
Sustainability Focus Courses

| PHIL 1180 | Environmental Ethics |  |
| :--- | :--- | :--- |
| Complete two of the following: | 8 |  |
| ECON 3423 | Environmental Economics |  |
| ENVR 4515 | Sustainable Development |  |


| ENVR 5202 | Environmental Science Field Seminar <br> Abroad |
| :--- | :--- |
| HIST 3412 | Global Environmental History |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| SOCL 1246 | Environment and Society |

Additional Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Mathematics and Statistics |  |  |
| ECON 2350 | Statistics | 4 |
| MATH 1251 | Calculus and Differential Equations for | 4 |
| or MATH 1341 | Biology 1 <br> Calculus 1 for Science and Engineering |  |

## Chemistry

Complete one of the following: 5
$\left.\begin{array}{ll}\text { CHEM 1211 } & \text { General Chemistry 1 } \\ \text { and CHEM 1212 } & \text { and Lab for CHEM 1211 } \\ \text { and CHEM 1213 } & \text { and Recitation for CHEM 1211 }\end{array}\right]$

## Computing and Social Issues

| Code <br> Complete one of the following: | Hours |  |
| :--- | :--- | ---: |
| PHIL 1145 | Technology and Human Values | 4 |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society <br> ANTH 3418Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

$\begin{array}{lll}\text { Computer Science English Requirement } \\ \text { Title } & \text { Hours }\end{array}$

## College Writing

ENGW 1111 First-Year Writing 4
Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

## Code Title

Hours
Complete five general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major

Integrating Knowledge and Skills Through Experience is satisfied through co-op.
Program Requirement
135 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | 0 Vacation | 0 |
| CS 1800 and CS 1801 | 4 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | ENVR 1101 | 4 |  |  |
| ENGW 1111 | 4 | IS 2000 | 4 |  |  |
| ENVR 1200 <br> and <br> ENVR 1201 | 5 |  |  |  |  |
|  | 19 |  | 18 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | ENVR 3300 <br> and | 5 Vacation | 0 Co-op | 0 |
| CS 3500 |  |  |  |  |
| IS 3500 | 4 CS 1210 | 1 |  |  |
| ENVR | 4 CS 4800 | 4 |  |  |
| Elective | 4 PHIL 1180 | 4 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3200 | 4 Vacation | 0 Co-op | 0 |
|  | MATH 1251 | 4 |  |  |
|  | IS 4800 | 4 |  |  |
|  | ENVR | 4 |  | 0 |
|  | Elective |  | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | $\begin{aligned} & 0 \text { ENVR } 5210 \\ & \text { or } 5250 \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
|  | ENGW 3302 <br> or 3315 | 4 |  |  |
|  | Sustainability <br> Focus <br> Course | 4 |  |  |


|  | Elective | 4 | 0 | 0 |
| :--- | :---: | ---: | :--- | ---: |
|  | 0 | 16 |  |  |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| ECON 1116 | 4 ECON 2350 | 4 |  |  |
| Computing <br> and Social <br> Issues <br> Course | 4 ENVR | 4 |  |  |
| Sustainability | 4 ENVR 4900 | 1,4 |  |  |
| Focus <br> Course | or 4997 |  |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | $13-16$ |  |  |

Total Hours: 133-136

## Information Science and Journalism, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Information Science Courses |  |
| :--- | :--- | ---: |
| Code | Hours |
| Computer Science Overview |  |$\quad$| CS 1200 | Computer Science/Information Science <br> Overview 1 |
| :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |
| Computer Science Fundamental Courses | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:
CS $1800 \quad$ Discrete Structures

| and CS 1801 | and Recitation for CS 1800 | 4 |
| :--- | :--- | :--- |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |


| and CS 2501 | and Lab for CS 2500 |
| :--- | :--- |
| CS 2510 | Fundamentals of Computer Science 2 |

and CS 2511 and Lab for CS 2510
and CS 2801 and Lab for CS 2800

| Computer Science Required Courses | 4 |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |

## Information Science Required Courses

IS 2000
Principles of Information Science
4

| IS 3500 | Information System Design and <br> Development | 4 |
| :--- | :--- | :--- |
| IS 4800 | Empirical Research Methods | 4 |
| IS 4900 | Information Science Senior Project | 5 |
| Information Science Elective (Integrative) | 4 |  |
| Complete one of the following: |  |  |
| IS 4200 | Information Retrieval |  |
| IS 4300 | Human Computer Interaction |  |
| IS 4700 | Social Information Systems | 4 |

## Journalism Major Requirements

Students transferring from outside institutions must complete a minimum of five 4-credit journalism courses at Northeastern, and these must include:

Code
JRNL 2201
JRNL 2301
JRNL 4650
Code
Title
Hours
Journalism Courses
A grade of $C$ or higher is required:

| JRNL 1101 | Journalism 1: Fundamentals of <br> Reporting | 4 |
| :--- | :--- | :--- |
| JRNL 2201 | Journalism 2: Intermediate Reporting | 4 |
| JRNL 2301 | Visual Storytelling in Journalism | 4 |
| JRNL 3610 | Digital Storytelling and Social Media | 4 |

Required Journalism

| JRNL 1150 | Interpreting the Day's News | 4 |
| :--- | :--- | :--- |
| JRNL 2350 | History of Journalism | 4 |

JRNL 3550 Law of the Press 4
JRNL 4650 Journalism Ethics and Issues 4
Journalism Electives
Complete two JRNL courses. 8

| Journalism-Related Requirement |  |
| :--- | :--- |
| HIST 1130 | Introduction to the History of the United |

## Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 2350 | Statistics | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br>  |  |

## Writing Requirement Year 3



- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience satisfied through co-op.

Required General Electives
Code Title Hours
Complete four general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS, IS, and JRNL courses

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1200 | 1 | CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1800 | 4 | CS 2511 | 1 |  |  |
| CS 1801 | 0 | CS 2800 | 4 |  |  |
| CS 2500 | 4 | CS 2801 | 1 |  |  |
| CS 2501 | 1 | JRNL 1101 | 4 |  |  |
| JRNL 1150 | 4 | HIST 1130 | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 1210 | 1 Vacation | 0 Co-op | 0 |
| IS 2000 (*) | 4 CS 3200 | 4 |  |  |
| JRNL 2201 | 4 IS 3500 (*) | 4 |  |  |
| PSYC 1101 | 4 JRNL 2301 | 4 |  |  |
|  | CS 4800 | 4 | 0 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 JRNL 3550 | 4 Elective | 4 Co-op | 0 |
|  | IS $4800\left(^{*}\right)$ | 4 Elective | 4 |  |
| Journalism <br> elective | 4 |  |  |  |
| Information <br> science <br> elective | 4 | 8 | 0 |  |
| 0 | 16 | 8 |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 (*) | 5 |
|  | JRNL 4650 | 4 |
|  | Journalism <br> elective | 4 |
|  | Computing <br> and social <br> issues | 4 |
| 0 | 17 |  |

Total Hours: 134
*Indicates course must be taken in the term listed.

## College of Engineering

Website (http://www.coe.neu.edu)
Nadine Aubry, PhD, Dean
Richard Harris, MS, Assistant Dean for Academic Scholarship, Mentoring, and Outreach; Director of Multicultural Engineering
Candace A. Martel, MEd, Assistant Dean for Undergraduate Academic Student Services and Director of Engineering Student Services
Rachelle Reisberg, MS, Assistant Dean for Engineering Enrollment and Retention; Director of Women in Engineering
Thomas C. Sheahan, ScD, Senior Associate Dean for Academic Affairs
Undergraduate Student Services Office
220 Snell Engineering Center
617.373.2154
advising@coe.neu.edu (cos@neu.edu)
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 this goal, while providing a 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 bioengineering, chemical engineering, civil engineering, computer engineering, electrical engineering, industrial engineering, and mechanical engineering. Five-year and four-year options are available to complete the Bachelor of Science degree program. The five-year option includes eighteen months of cooperative education work experience, and the four-year option includes twelve months of cooperative education experience. Customized four-year programs without co-op experience are also available.

The college encourages students to study the arts, sciences, business, and other areas outside engineering to allow for an increased 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 different areas such as business, computer science, biomedical engineering, math, or music. In many cases, the minor can be completed without course overloads.

The college also offers an array of international educational experiences, including a number of study-abroad options, international cooperative educational experiences, and Dialogue of Civilizations classes (which offer a four- to six-week opportunity to study engineering or a related field in the context of an international experience).

In addition to a full array of university services, specialized advising and other support services (including tutoring) are provided. Students in the University Honors Program may participate in honors sections of a number of 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 programs in chemical engineering, civil engineering, computer engineering, electrical engineering, industrial engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org). [QY Richard: What about bioengineering?]

## Bachelor of Science/Master of Science Dual-Degree Program

The Departments of Bioengineering, Chemical Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, and Mechanical and Industrial 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 of required course work (four or five semesters in the undergraduate curriculum depending upon departmental requirements), students may petition to enter a BS/MS program. Degree candidates must maintain a 3.400 cumulative grade-point average (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 recitations 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 in writing by the student's academic advisor prior to the start of each semester. Only general electives taken outside the College of Engineering may be taken on a pass/fail grading basis.

## 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 are 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 a semester GPA of at least a 1.800 at the end of each full-term semester (fall, spring) of the first-year curriculum
- Not earning at least 12 semester hours at the end of each semester of the first-year curriculum
- Not earning at least 24 semester hours at the end of the two full-term semesters (fall, spring) of the first-year curriculum


## Upper-class and Transfer Students:

- Not earning at least 12 semester hours in the academic full-term semester (fall, spring) just completed
- Not maintaining an overall cumulative GPA of at least 2.000 at the end of each full-term academic semester (fall, spring)
- Not maintaining a GPA of at least a 2.000 in the major at the end of the fourth academic full-term semester of the curriculum and at the end of each full-term academic semester (fall, spring) thereafter
- Accumulating three outstanding course deficiencies (grades of F, I, W, NE, U, or missing grades)
- Earning a full-term semester (fall, spring) GPA of 1.800 or lower
- 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

Students who have below a 1.000 GPA in any academic term following their first semester or cumulatively may be dismissed, regardless of their prior academic status, at the discretion of the college.

Full-time students on academic 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 GPA in a current term (fall, spring, summer, summer 1, or summer 2)
- Completing fewer than 12 semester hours in a full-term (fall, spring) academic semester
- Not following a program of study approved by the student's academic advisor
- Remaining on academic probation after two full-term (fall, spring) academic semesters

Notation of this academic dismissal action 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 Minors

- Entrepreneurial Engineering, Minor (p. 336)
- Materials Science and Engineering, Minor (p. 337)
- Sustainable Energy Systems, Minor (p. 337)


## Entrepreneurial Engineering, Minor

The entrepreneurial engineering minor is designed for the technologyminded entrepreneur who seeks to understand disciplinary fundamentals, assess market needs, create technologies, and determine how to manufacture solutions sustainably and economically. The course requirements for the minor are designed to incorporate both engineering elements (product development and prototyping) and creative elements (product design), along with market and societal considerations (customer discovery and needs assessment). The elective option provides an opportunity to specialize in one of three areas: manufacturing, design, or venture creation. Versions of this minor are available for both engineering and nonengineering majors. Sign up for the minor by contacting your academic advisor.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## GPA Requirement

2.000 GPA required in the minor

## Required Core Courses

For Undergraduates in the College of Engineering

| GE 5010 | Customer-Driven Technical Innovation <br> for Engineers | 4 |
| :--- | :--- | ---: |
| GE 5020 | Engineering Product Design <br> Methodology | 4 |
| GE 5030 | Iterative Product Prototyping for <br> Engineers | 4 |
| GE 5100 | Product Development for Engineers | 4 |

For Undergraduates outside the College of Engineering
GE 1110 Engineering Design 4
Complete three of the following:
GE $5010 \quad$ Customer-Driven Technical Innovation 4

|  | for Engineers | 4 |
| :--- | :--- | :---: |
| GE 5020 | Engineering Product Design <br>  <br> Methodology | 4 |
| GE 5030 5100 | Iterative Product Prototyping for <br> $\quad$Engineers | 4 |

## Electives

Complete one of the following: 4

| Venture Creation |  |
| :--- | :--- |
| ENTR 2303 | Entrepreneurial Marketing and Selling |
| ENTR 3305 | Business Modeling for Entrepreneurs |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3319 | Innovation Workshop |
| ENTR 3330 | Lean Design and Development for <br>  <br> Entrepreneurs |
|  | Business Planning for Technology <br> Ventures |

ENTR 4510 New Venture Laboratory Abroad
Design
ARTE 3901 Art and Design Special Topics
ARTF 1122 2D Fundamentals: Surface and Drawing
and ARTF 1123 and 2D Tools
ARTF 1124 3D Fundamentals: Structure and
and ARTF 1125 Drawing
and 3D Tools

| ARTG 1250 | Design Process Context and Systems |
| :---: | :--- |
| ARTG 3462 | Experience Design 1 |
| ARTG 3463 | Experience Design 2 |
| Manufacturing |  |
| IE 2310 | Introduction to Industrial Engineering |
| IE 4512 | Engineering Economy |
| IE 4525 | Logistics and Supply Chain |

IE $4530 \quad$ Manufacturing Systems and Techniques

## IE 4600 Systems Design for Sustainability

## Materials Science and Engineering, 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 student 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 space-based structures.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete Introduction to Material Science (ME 2340) and one additional course from the following list:

| ME 2340 | Introduction to Material Science | 4 |
| :--- | :--- | ---: |
| Complete one of the following: | $4-5$ |  |
| EECE 3392 | Electronic Materials |  |
| CIVE 2260 | Civil Engineering Materials |  |
| and CIVE 2261 | and Materials and Measurements Lab |  |

## 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 5606 Micro- and Nanofabrication |  |
| Chemical Engineering 4 <br> CHME 4634 Nanomaterials: Thin Films and <br> $\quad$ Structures | 4 |

## Mechanical and Industrial Engineering

| ME 5600 | Materials Processing and Process <br> Selection | 4 |
| :--- | :--- | ---: |
| ME 5645 | Environmental Issues in Manufacturing <br> and Product Use | 4 |
| Chemistry and Chemical Biology |  |  | | CHEM 3501 | Inorganic Chemistry |
| :--- | :--- |
| CHEM 5687 | Principles of Solid State Chemistry |

## GPA Requirement

2.000 GPA required in the minor

## Sustainable Energy Systems, Minor

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Courses required to fulfill a major requirement (i.e., those that are specifically listed by course number and name on the curriculum sheet) may not be used to fulfill minor requirements. However, one engineering course from this minor with course number 4000 to 5999 in the student's major can be used as a technical elective or advanced engineering elective to fulfill the student's major requirements.

- Civil engineering students may not count GE 3300 toward the sustainable energy systems minor if this course is used to fulfill major requirements.
- Chemical engineering students and mechanical engineering students may not count CHME 2320 or ME 2380 toward the sustainable energy systems minor since these courses are required in their respective majors.
- Chemical engineering students may not count CHME 2308 toward the sustainable energy systems minor since this course is required in their major.
- Industrial engineering students may not count IE 4512 toward the sustainable energy systems minor since this course is required in their major.


## Core Energy Science, Technology Courses

Complete two of the following:
CHME 2320 Chemical Engineering Thermodynamics
1
or ME 2380 Thermodynamics
GE 3300 Energy Systems: Science, Technology, and Sustainability (CIVE students may not count this course toward a sustainable energy minor if used to fulfill a major requirement.)
ENGR 5670 Sustainable Energy: Materials, Conversion, Storage, and Usage
$\begin{array}{ll}\text { ENSY } 5000 & \begin{array}{l}\text { Fundamentals of Energy System } \\ \text { Integration }\end{array}\end{array}$

## Environmental/Economics/Policy Courses

Complete one of the following

| CIVE 5275 | Life Cycle Assessment of Materials, <br> Products, and Infrastructure |
| :--- | :--- |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics | | ENTR 3325 | Sustainable Innovation |
| :--- | :--- |
| ENTR 3336 | Resource Management and Renewable <br> Energy in Iceland |
| ENVR 4515 | Sustainable Development <br> FINA 2720 |
| ME 56stainability in the Business |  |
| Environment |  |

## Electives

| Complete two | wing: | 8 |
| :---: | :---: | :---: |
| CHME 2308 | Conservation Principles in Chemical Engineering (Chemical engineering students may not count this course toward a sustainable energy minor if used to fulfill a major requirement.) |  |
| CHME 2320 | Chemical Engineering Thermodynamics 1 |  |
| CHME 5630 | Biochemical Engineering |  |
| CHME 5699 | Special Topics in Chemical Engineering |  |
| CIVE 4566 | Design for Sustainable Transportation: Netherlands |  |
| CIVE 5275 | Life Cycle Assessment of Materials, Products, and Infrastructure |  |
| EECE 5680 | Electric Drives |  |
| EECE 5682 | Power Systems Analysis 1 |  |
| EECE 5686 | Electrical Machines |  |
| EECE 5688 | Analysis of Unbalanced Power Grids |  |
| EECE 5696 | Energy Harvesting Systems |  |
| GE 3300 | Energy Systems: Science, Technology, and Sustainability (CIVE students may not count this course toward a sustainable energy minor if used to fulfill a major requirement.) |  |
| ENGR 5670 | Sustainable Energy: Materials, Conversion, Storage, and Usage |  |
| ENSY 5000 | Fundamentals of Energy System Integration |  |
| IE 4512 | Engineering Economy (IE students may not count this course toward a sustainable energy minor if used to fulfill a major requirement.) |  |
| IE 4600 | Systems Design for Sustainability |  |
| ME 2380 | Thermodynamics |  |
| ME 4680 | Energy Systems |  |


| ME 5645 | Environmental Issues in Manufacturing <br> and Product Use |
| :--- | :--- |
| ME 5685 | Solar Thermal Engineering |
| SBSY 5100 | Sustainable Design and Technologies <br> in Construction |
| SBSY 5200 | Sustainable Engineering Systems for <br> Buildings |

## GPA Requirement

2.000 GPA required in the minor

## Bioengineering

Website (http://www.bioe.neu.edu)

## Lee Makowski, PhD

Professor and Chair
212A Lake Hall
617.373.7805

The Department of Bioengineering offers students a broad education built on fundamentals in science, mathematics, and engineering, with a focus on the biological applications of engineering. The program is designed to provide a rigorous engineering training along with a comprehensive understanding of the biological constraints intrinsic to designing artificial systems to interface with, augment, replace, repair, or monitor living systems. These constraints depend on the properties of the biological system involved and the functionality that is being created. The living system may be the human body; an ecosystem; or, more broadly, a bioreactor, tissue culture system, or any system with living components. The presence of naturally occurring biological tissue places special constraints on the design and implementation of artificial constructs and their interface to living systems. Bioengineers are engineers with comprehensive understanding of the engineering requirements intrinsic to working within a biological context.

Bioengineering is a relatively new field driven by the recognition that engineering of biological systems or systems that interface with living systems requires a multidisciplinary approach that takes into account the mechanical, electrical, chemical, and materials properties of the biological system. With that in mind, the bioengineering program has been designed to provide a rigorous engineering education that endows a broad understanding of the quantitative analysis of biological systems and a deep expertise in one of four areas of engineering. The curriculum is structured around a core of six courses that quantitatively analyze biological systems from multiple points of view. The core provides the fundamentals of quantitative physiology, electrical engineering in the context of excitable tissues; basics of mechanical engineering in the context of the musculoskeletal system; and thermodynamics, heat transfer, and fluids mechanics within the context of physiological systems. On completion of the core, students choose one of four concentrations (bioimaging and signal processing, cell and tissue engineering, biomechanics, or biomedical devices), which provides the opportunity to develop a deep level of expertise in an important area of bioengineering. The curriculum culminates with a two-semester capstone course to provide experience in design and implementation of a novel bioengineering project.

The program is committed to providing a multidisciplinary education, making connections from the classroom and laboratory to research, coop, and co-curricular experiences. The curriculum provides fundamentals in mathematics, physical sciences, and engineering science; laboratory
experiences; as well as an emphasis on the special considerations intrinsic to design within a biological context. Through the university's general educational requirements, students gain awareness of the impact of engineering decisions in a broader societal and ethical context. The department encourages professional development through active participation and leadership in student organizations, societies, and departmental activities. As a result, the bioengineering program is designed to prepare students for success in industrial careers; graduate programs; or professional medical, law, and business schools.

The bioengineering program seeks to enable students to apply knowledge of mathematics, science, and engineering to design of novel systems interfacing, replacing, augmenting, or repairing living systems; to conduct bioengineering experiments, as well as to analyze and interpret data; to design a system, component, or biological process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, safety, manufacturability, and sustainability; to function on teams, including multidisciplinary teams; to identify, formulate, and solve bioengineering problems; to understand professional and ethical responsibility, including protecting the public and the environment by performing work in a safe and environmentally conscious manner; to communicate effectively; to understand the impact of engineering solutions in a global and societal context; to recognize the need for and the ability to engage in lifelong learning; to understand professional behavior, culture, expectations, and contemporary issues; and to use the techniques, skills, and modern engineering tools intrinsic to bioengineering practice.

The bioengineering curriculum is an innovative plan that is continuously and carefully assessed and evaluated to ensure that graduates of the program are fully prepared for success as professional bioengineers and are prepared for graduate or professional school.

## Programs

## Bachelor of Science in Bioengineering (BSBioE)

-Bioengineering (p. 339)

## Dual Degree

- Bioengineering, BSBioE/ Engineering Management, MS (p. 342)
- Bioengineering, BSBioE/ MS (p. 346)


## Bioengineering, BSBioE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum required in BIOE courses

## Mathematics/Science Requirement

Complete 37 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | 5 |
| :---: | :---: | :---: |
| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 | 5 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| GE 2361 | Mathematical Methods for Engineers | 4 |
| PHYS 1171 and PHYS 1172 and PHYS 1173 | Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171 | 5 |
| PHYS 1175 <br> and PHYS 1176 <br> and PHYS 1177 | Physics 2 for Bioscience and Bioengineering and Lab for PHYS 1175 and Interactive Learning Seminar for PHYS 1175 | 5 |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Total Hours |  | 37 |

## Bioengineering Core Requirements

Complete 38 semester hours in bioengineering core requirements as indicated below.

## Required Courses

| BIOE 2355 | Quantitative Physiology for <br> Bioengineers | 4 |
| :--- | :--- | :--- |
| BIOE 2365 | Bioengineering Measurement, <br> and BIOE 2366 <br> Experimentation, and Statistics <br> and Lab for BIOE 2365 | 5 |
| BIOE 2350 | Biomechanics | 4 |
| BIOE 3380 | Biomolecular Dynamics and Control | 4 |
| BIOE 3310 | Transport and Fluids for Bioengineers | 4 |
| BIOE 3210 Bioengineering Capstone | Bioelectricity | 4 |
| BIOE 4790 | Capstone Design 1 | 4 |
| BIOE 4792 |  | 4 |

## Supplemental Credit

3 semester hours from the following course count toward the 3 bioengineering core requirements:
GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course count toward the
bioengineering core requirements:
GE 1502 Cornerstone of Engineering 2

Total Hours

## Concentration

Complete 20 semester hours in one of the following four concentrations. Requirements for the concentrations are listed below (p. 340).

- Bioimaging and Signal Processing
- Cell and Tissue Engineering
- Biomechanics
- Biomedical Devices


## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| BIOE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| BIOE 3000 | Professional Issues in Engineering | 1 |

## Additional Required Courses

Partial credit from the following courses count toward requirements above:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

| A grade of C or higher is required: |  |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical <br> or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete seven academic, nonremedial, nonrepetitive

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

136 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN BIOIMAGING AND SIGNAL PROCESSING Required Courses |  |  |
| BIOE 5320 | Advanced Biomedical Measurements and Instrumentation | 4 |
| BIOE 5235 | Biomedical Imaging | 4 |
| Elective Courses |  |  |
| Complete th | following: | 12 |
| BIOE 206 | Special Topics in Bioengineering |  |


| BIOE 4991 | Research |  |
| :---: | :---: | :---: |
| BIOE 4992 | Directed Study |  |
| BIOL 5581 | Biological Imaging |  |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 3468 | Noise and Stochastic Processes |  |
| EECE 4512 | Biomedical Electronics |  |
| EECE 4626 | Image Processing and Pattern Recognition |  |
| EECE 5648 | Biomedical Optics |  |
| EECE 5664 | Biomedical Signal Processing |  |
| CONCENTRATION IN CELL AND TISSUE ENGINEERING Required Courses |  |  |
| BIOE 5410 | Molecular Bioengineering | 4 |
| BIOE 5420 | Cellular Engineering | 4 |
| Elective Courses |  |  |
| Complete three of the following: |  | 12-15 |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOE 5430 | Principles and Applications of Tissue Engineering |  |
| BIOE 5820 | Biomaterials |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| BIOL 2323 <br> and BIOL 2324 | and |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 |  |
| CHME 5630 | Biochemical Engineering |  |
| CHME 5899 | Biotechnology |  |
| ME 5667 | Solid Mechanics of Cells and Tissues |  |

## CONCENTRATION IN BIOMECHANICS

Required Courses

| ME 5665 | Musculoskeletal Biomechanics | 4 |
| :--- | :--- | ---: |
| BIOE 5630 | Physiological Fluid Mechanics | 4 |
| Elective Courses |  |  |
| Complete three of the following: | 12 |  |


| BIOE 2060 | Special Topics in Bioengineering |
| :--- | :--- |
| BIOE 4991 | Research |
| BIOE 4992 | Directed Study |
| BIOE 5820 | Biomaterials |
| ME 2350 | Engineering Mechanics and Design |
| ME 2355 | Mechanics of Materials |
| ME 5667 | Solid Mechanics of Cells and Tissues |
| ME 4555 | System Analysis and Control |

## CONCENTRATION IN BIOMEDICAL DEVICES

Required Courses
BIOE 5810 Design of Biomedical Instrumentation 4
BIOE $5820 \quad$ Biomaterials 4

## Elective Courses

Complete three of the following: 12-13
BIOE 2200
BIOE 2060 Special Topics in Bioengineering

| BIOE 4991 | Research |
| :--- | :--- |
| BIOE 4992 | Directed Study |
| BIOE 5850 | Design of Implants |
| CHME 5160 | Drug Delivery: Engineering Analysis |
| EECE 5664 | Biomedical Signal Processing |
| ME 2340 | Introduction to Material Science |
| and ME 2341 | and Lab for ME 2340 |
| ME 4555 | System Analysis and Control |

Plan of Study
Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1171 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1172 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1173 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOE 2365 <br> (AD) | 4 BIOE 2000 | 1 Vacation | Co-op |  |
| BIOE 2366 | 1 BIOE 2350 | 4 |  |  |
| $\begin{aligned} & \text { BIOL } 1115 \\ & \text { (ND) } \end{aligned}$ | 4 BIOE 2355 | 4 |  |  |
| BIOL 1116 | 1 CHEM 2311 | 4 |  |  |
| GE 2361 | 4 CHEM 2312 | 1 |  |  |
| PHYS 1175 <br> (ND) | 3 CHEM 2319 | 0 |  |  |
| PHYS 1176 <br> (AD) | 1 General elective | 4 |  |  |
| PHYS 1177 | 1 |  |  |  |
|  | 19 | 18 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | BIOE 3210 | 4 BIOE 3310 | 4 Co-op |  |
|  | BIOE 3380 | 4 General elective | 4 |  |
|  | BIOE elective | 4 |  |  |
|  | ENGW 3302 (WD) | 4 |  |  |
|  | 0 | 16 | 8 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | BIOE 3000 | $\begin{aligned} & 1 \text { BIOE } 4790 \\ & \text { (EI, CE) } \end{aligned}$ | 4 Co-op |  |
|  | BIOE elective | 4 General elective | 4 |  |
|  | BIOE eective | 4 |  |  |


| BIOE elective | 4 |  |  |
| :---: | :---: | :---: | :---: |
| General <br> elective | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | BIOE 4792 | 4 |
|  | BIOE elective | 4 |
| General <br> elective | 4 |  |
| General <br> elective | 4 |  |


| 0 | 16 |
| :---: | :---: |

Total Hours: 136

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1171 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1172 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1173 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall <br> BIOE 2000 | Hours Spring <br> 1 Co-op | Hours Summer 1 Co-op | Hours Summer 2 <br> Vacation | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOE 2365 <br> (AD) | 4 |  |  |  |
| BIOE 2366 | 1 |  |  |  |
| $\begin{aligned} & \text { BIOL } 1115 \\ & \text { (ND) } \end{aligned}$ | 4 |  |  |  |
| BIOL 1116 | 1 |  |  |  |
| GE 2361 | 4 |  |  |  |
| PHYS 1175 <br> (ND) | 3 |  |  |  |
| PHYS 1176 <br> (AD) | 1 |  |  |  |
| PHYS 1177 | 1 |  |  |  |
|  | 20 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOE 2350 | 4 Co-op | Co-op | BIOE 3310 | 4 |
| BIOE 2355 | 4 |  | General <br> elective | 4 |
| CHEM 2311 | 4 |  |  |  |
| CHEM 2312 | 1 |  |  |  |
| CHEM 2319 | 0 |  |  |  |


| General elective | 4 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 |  | 0 | 0 |  | 8 |
| Year 4 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours | Summer 2 | Hours |
| BIOE 3000 | 1 | Co-op | Co-op |  | BIOE 4790 <br> (EI, CE) | 4 |
| BIOE 3210 | 4 |  |  |  | General elective | 4 |
| BIOE 3380 | 4 |  |  |  |  |  |
| BIOE elective | 4 |  |  |  |  |  |
| ENGW 3302 <br> (WD) | 4 |  |  |  |  |  |
|  | 17 |  | 0 | 0 |  | 8 |
| Year 5 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |
| BIOE 4792 | 4 | BIOE elective | 4 |  |  |  |
| BIOE elective | 4 | BIOE elective | 4 |  |  |  |
| BIOE elective | 4 | General elective | 4 |  |  |  |
| General elective |  | General elective | 4 |  |  |  |
| 16 |  |  | 16 |  |  |  |

## Four Years, Two Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ |  | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 | PHYS 1171 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1172 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1173 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| GE 2361 | 4 BIOE 2000 | 1 BIOE 3310 | 4 Co-op | 0 |
| $\begin{aligned} & \text { BIOL } 1115 \\ & \text { (ND) } \end{aligned}$ | 4 BIOE 2350 | 4 General elective | 4 |  |
| BIOL 1116 | 1 BIOE 2355 | 4 |  |  |
| PHYS 1175 <br> (ND) | 3 CHEM 2311 | 4 |  |  |
| PHYS 1176 <br> (AD) | 1 CHEM 2312 | 1 |  |  |
| PHYS 1177 | 1 CHEM 2319 | 0 |  |  |
| $\begin{aligned} & \text { BIOE } 2365 \\ & \text { (AD) } \end{aligned}$ | 4 General elective | 4 |  |  |
| BIOE 2366 | 1 |  |  |  |
|  | 19 | 18 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 BIOE 3000 | 1 BIOE 4790 <br> (EI, CE) | 4 Co-op | 0 |
|  | BIOE 3210 | 4 BIOE elective | 4 |  |
|  | BIOE 3380 | 4 |  |  |
| BIOE elective | 4 |  | 0 |  |
|  | BIOE elective | 4 | 8 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| Co-op | 0 BIOE 4792 | 4 The following credits are required via AP credit, course overloading, or courses taken during co-op: |  |
|  | General elective | 4 General elective | 4 |
|  | BIOE elective | 4 General elective | 4 |
|  | BIOE elective | 4 General elective | 4 |
|  |  | ENGW 3302 (WD) | 4 |
|  | 0 | 16 | 16 |
| Total Hours: 136 |  |  |  |

## Bioengineering, BSBioE/Engineering Management, MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Major GPA Requirements

Minimum 2.000 required in Undergraduate BIOE courses
3.400 GPA required to enter the program

Minimum 3.000 GPA required in all graduate courses

## Mathematics/Science Requirement

Complete 37 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | 5 |
| :---: | :---: | :---: |
| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| CHEM 2311 and CHEM 2312 and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 | 5 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| GE 2361 | Mathematical Methods for Engineers | 4 |
| PHYS 1171 and PHYS 1172 and PHYS 1173 | Physics 1 for Bioscience and <br> Bioengineering <br> and Lab for PHYS 1171 <br> and Interactive Learning Seminar for <br> PHYS 1171 | 5 |
| PHYS 1175 and PHYS 1176 and PHYS 1177 | Physics 2 for Bioscience and <br> Bioengineering <br> and Lab for PHYS 1175 <br> and Interactive Learning Seminar for <br> PHYS 1175 | 5 |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Bioengineering Core Requirements

Complete 38 semester hours in bioengineering core requirements as indicated below.

## Required Courses

| BIOE 2355 | Quantitative Physiology for <br> Bioengineers | 4 |
| :--- | :--- | ---: |
| BIOE 2365 | Bioengineering Measurement, <br> and BIOE 2366 | Experimentation, and Statistics <br> and Lab for BIOE 2365 |
| BIOE 2350 | Biomechanics | 5 |
| BIOE 3380 | Biomolecular Dynamics and Control | 4 |
| BIOE 3310 | Transport and Fluids for Bioengineers | 4 |
| BIOE 3210 | Bioelectricity | 4 |

## Bioengineering Capstone

| BIOE 4790 | Capstone Design 1 | 4 |
| :--- | :--- | :--- |
| BIOE 4792 |  | 4 |

Supplemental Credit
3 semester hours from the following course count toward the 3 bioengineering core requirements:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2
bioengineering core requirements:

$$
\text { GE } 1502 \quad \text { Cornerstone of Engineering } 2
$$

## Concentration

Complete 20 semester hours in one of the following four concentrations. Requirements for the concentrations are listed below (p. 344).

- Bioimaging and Signal Processing
- Cell and Tissue Engineering
- Biomechanics
- Biomedical Devices

GE ofessional Development

| BIOE 2000 | Introduction to Engineering Co-op 1 <br>  Education |  |
| :--- | :--- | :--- |
| BIOE 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
Partial credit from the following courses count toward the 1 requirements above:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Elective

Complete three academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours.

## Graduate Courses taken as an undergraduate student

## Required Graduate Courses

| EMGT 5220 | Engineering Project Management | 4 |
| :--- | :--- | :--- |
| EMGT 6225 | Economic Decision Making | 4 |
| IE 6200 | Engineering Probability and Statistics | 4 |
| MEIE 6850 | Research Seminar in Mechanical and <br> Industrial Engineering | 0 |
| OR 6205 | Deterministic Operations Research | 4 |

## Graduate Technical Electives

Complete 16 semester hours from the following
CSYE 6200 Concepts of Object-Oriented Design 4
CSYE $6205 \quad$ Concepts of Object-Oriented Design 4

|  | Component Software Development | 4 |
| :--- | :--- | ---: |
| CSYE 6210 | Enterprise Software Design | 4 |
| CSYE 6220 | Software Engineering | 4 |
| CSYE 7230 | Building Virtual Environments | 4 |
| CSYE 7270 | User Experience Design and Testing | 4 |
| CSYE 7280 | Fundamentals of Energy System | 4 |
| ENSY 5000 | Integration |  |
|  | Engineering/Organizational Psychology | 4 |
| EMGT 5300 | Financial Management for Engineers | 4 |


| EMGT 7978 | Independent Study | 1-4 |
| :---: | :---: | :---: |
| ENTR 6200 | Enterprise Growth and Innovation | 3 |
| ENTR 6212 | Business Planning for New Ventures | 3 |
| ENTR 6218 | Business Model Design and Innovation | 3 |
| ENTR 6219 | Financing Ventures from Early Stage to Exit | 3 |
| GE 5100 | Product Development for Engineers | 4 |
| IE 5400 | Healthcare Systems Modeling and Analysis | 4 |
| IE 5500 | Systems Engineering in Public Programs | 4 |
| IE 5617 | Lean Concepts and Applications | 4 |
| IE 5620 | Mass Customization | 4 |
| IE 5640 | Data Mining for Engineering Applications | 4 |
| IE 6300 | Manufacturing Methods and Processes | 4 |
| IE 7200 | Supply Chain Engineering | 4 |
| IE 7215 | Simulation Analysis | 4 |
| IE 7255 | Manufacturing Processes | 4 |
| IE 7270 | Intelligent Manufacturing | 4 |
| IE 7275 | Data Mining in Engineering | 4 |
| IE 7280 | Statistical Methods in Engineering | 4 |
| IE 7285 | Statistical Quality Control | 4 |
| IE 7290 | Reliability Analysis and Risk Assessment | 4 |
| IE 7315 | Human Factors Engineering | 4 |
| IE 7615 | Neural Networks in Engineering | 4 |
| INFO 6210 | Data Management and Database Design | 4 |
| INFO 6215 | Business Analysis and Information Engineering | 4 |
| INFO 6245 | Planning and Managing Information Systems Development | 4 |
| INFO 7245 | Agile Software Development | 4 |
| INFO 7260 | Business Process Engineering | 4 |
| INFO 7275 | Advanced Database Management Systems | 4 |
| INFO 7285 | Organizational Change and IT | 4 |
| INFO 7290 | Data Warehousing and Business Intelligence | 4 |
| INFO 7330 | Information Systems for HealthcareServices Delivery | 4 |
| INFO 7365 | Enterprise Architecture Planning and Management | 4 |
| INFO 7390 | Advances in Data Sciences and Architecture | 4 |
| MGSC 6206 | Management of Service and Manufacturing Operations | 3 |
| OR 7230 | Probabilistic Operation Research | 4 |
| OR 7235 | Inventory Theory | 4 |
| OR 7240 | Integer and Nonlinear Optimization | 4 |
| OR 7245 | Network Analysis and Advanced Optimization | 4 |
| OR 7250 | Multi-Criteria Decision Making | 4 |
| OR 7310 | Logistics, Warehousing, and Scheduling | 4 |


| SCHM 6212 | Executive Roundtable in Supply Chain Management | 3 |
| :---: | :---: | :---: |
| SCHM 6214 | Sourcing and Procurement | 3 |
| SCHM 6215 | Supply Chain Analytics | 3 |
| SCHM 6221 | Sustainability and Supply Chain Management | 3 |
| SCHM 6222 | Managing Emerging Issues in Supply Chain Management | 3 |
| SCHM 6223 | Managing Healthcare Supply Chain Operations | 3 |
| SCHM 6224 | Demand Planning and Forecasting | 3 |
| TECE 6200 | Innovation and Entrepreneurial Growth | 3 |
| TECE 6222 | Emerging and Disruptive Technologies | 3 |
| TECE 6230 | Entrepreneurial Marketing and Selling | 3 |
| TECE 6250 | Lean Design and Development | 3 |
| TECE 6300 | Managing a Technology-Based Business | 3 |
| TECE 6340 | The Technical Entrepreneur as Leader | 3 |
| TELE 5310 | Fundamentals of Communication Systems | 4 |
| TELE 5330 | Data Networking | 4 |

## Course Work That Does Not Count Toward That Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

152 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN BIOIMAGING AND SIGNAL PROCESSING Required Courses |  |  |
| BIOE 5320 | Advanced Biomedical Measurements and Instrumentation | 4 |
| BIOE 5235 | Biomedical Imaging | 4 |
| Elective Courses |  |  |
| Complete three of the following: |  | 12 |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOL 5581 | Biological Imaging |  |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 3468 | Noise and Stochastic Processes |  |
| EECE 4512 | Biomedical Electronics |  |
| EECE 4626 | Image Processing and Pattern Recognition |  |
| EECE 5648 | Biomedical Optics |  |
| EECE 5664 | Biomedical Signal Processing |  |
| CONCENTRATION IN CELL AND TISSUE ENGINEERING Required Courses |  |  |
| BIOE 5410 | Molecular Bioengineering | 4 |
| BIOE 5420 | Cellular Engineering | 4 |


| Complete three of the following: |  | 12-15 |
| :---: | :---: | :---: |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOE 5430 | Principles and Applications of Tissue Engineering |  |
| BIOE 5820 | Biomaterials |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| BIOL 2323 <br> and BIOL 2324 | and |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 |  |
| CHME 5630 | Biochemical Engineering |  |
| CHME 5899 | Biotechnology |  |
| ME 5667 | Solid Mechanics of Cells and Tissues |  |

## CONCENTRATION IN BIOMECHANICS

## Required Courses

| ME 5665 | Musculoskeletal Biomechanics | 4 |
| :--- | :--- | ---: |
| BIOE 5630 | Physiological Fluid Mechanics | 4 |
| Elective Courses |  | 12 |
| Complete three of the following: |  |  |


| BIOE 2060 | Special Topics in Bioengineering |
| :--- | :--- |
| BIOE 4991 | Research |
| BIOE 4992 | Directed Study |
| BIOE 5820 | Biomaterials |
| ME 2350 | Engineering Mechanics and Design |
| ME 2355 | Mechanics of Materials |
| ME 5667 | Solid Mechanics of Cells and Tissues |
| ME 4555 | System Analysis and Control |

## CONCENTRATION IN BIOMEDICAL DEVICES

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| BIOE 5810 | Design of Biomedical Instrumentation | 4 |
| BIOE 5820 | Biomaterials | $12-13$ |
| Elective Courses |  |  |
| Complete three of the following: <br> BIOE 2200 |  |  |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOE 5850 | Design of Implants |  |
| CHME 5160 | Drug Delivery: Engineering Analysis |  |
| EECE 5664 | Biomedical Signal Processing |  |
| ME 2340 | Introduction to Material Science |  |
| and ME 2341 | and Lab for ME 2340 |  |
| ME 4555 | System Analysis and Control |  |

## Plan of Study

## Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | Vacation |  |
| (FQ) | (FQ) |  |  |  |

$\left.\begin{array}{lllll}\text { CHEM 1151 } & \begin{array}{c}4 \text { PHYS 1171 } \\ \text { (ND) }\end{array} & 3\end{array}\right]$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| GE 2361 | 4 BIOE 2000 | 1 Vacation | Co-op |  |
| $\begin{aligned} & \text { BIOL } 1115 \\ & \text { (ND) } \end{aligned}$ | 4 CHEM 2311 | 4 |  |  |
| BIOL 1116 | 1 CHEM 2312 | 1 |  |  |
| PHYS 1175 <br> (ND) | 3 CHEM 2319 | 0 |  |  |
| PHYS 1176 <br> (AD) | 1 BIOE 2355 | 4 |  |  |
| PHYS 1177 | 1 BIOE 2350 | 4 |  |  |
| BIOE 2365 <br> (AD) | 4 General elective | 4 |  |  |
| BIOE 2366 | 1 |  |  |  |
|  | 19 | 18 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | ENGW 3302 | 4 General | 4 Co-op |  |
|  | (WD) | elective 1 |  |  |
|  | BIOE 3380 | 4 BIOE 3310 | 4 |  |
|  | BIOE 3210 | 4 |  |  |
|  | BioE Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring How | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | Bioengineering Technology elective 2 | g 4 BIOE 4790 (EI, CE) | 4 Vacation |  |
|  | Bioengineerin Technology elective 3 | 4 Engineering Management Graduate Elective | 4 |  |
|  | IE 6200 | 4 |  |  |
|  | EMGT 5220 | 4 |  |  |
|  | BIOE 3000 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| OR 6205 | 4 BIOE 4792 | 4 |
| Engineering <br> Management | 4 EMGT 6225 | 4 |
| Graduate <br> elective | 4 Engineering | 4 |
| Engineering <br> Management <br> Graduate <br> elective | Management <br> Graduate <br> elective |  |


| Bioengineerin <br> Technology <br> elective 44Bioengineerin <br> Technology <br> elective 5 4   <br> 16   16 <br> Total Hours: 152    |
| :--- | :--- | :--- |

## Five Years, Two Co-ops in Spring/Summer 1



| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| GE 2361 | 4 Co-op | Co-op | Vacation |  |
| BIOL 1115 <br> (ND) | 4 |  |  |  |
| BIOL 1116 | 1 |  |  |  |
| PHYS 1175 <br> (ND) | 3 |  |  |  |
| PHYS 1176 <br> (AD) | 1 |  |  |  |
| PHYS 1177 | 1 |  |  |  |
| BIOE 2365 <br> (AD) | 4 |  |  |  |
| BIOE 2366 | 1 |  |  |  |
| BIOE 2000 | 1 |  |  |  |
|  | 20 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHEM 2311 | 4 Co-op | Co-op |  | General elective 1 | 4 |
| CHEM 2312 | 1 |  |  | BIOE 3310 | 4 |
| CHEM 2319 | 0 |  |  |  |  |
| BIOE 2355 | 4 |  |  |  |  |
| BIOE 2350 | 4 |  |  |  |  |
| General elective | 4 |  |  |  |  |
|  | 17 | 0 | 0 |  | 8 |
| Year 4 |  |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours | Summer 2 | Hours |
| ENGW 3302 <br> (WD) | 4 IE 6200 | 4 Vacation |  | $\begin{aligned} & \text { BIOE } 4790 \\ & \text { (EI, CE) } \end{aligned}$ | 4 |
| BIOE 3380 | 4 EMGT 5220 | 4 |  | Engineering Management Graduate elective | 4 |


| BIOE 3210 |  | Bioengineering Technology elective 2 | 4 |
| :---: | :---: | :---: | :---: |
| Bioengineerin Technology elective 1 | 4 | Bioengineerin Technology elective 3 | 4 |


| BIOE 3000 | 1 |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
|  | 17 | 16 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| BIOE 4792 | 4 EMGT 6225 | 4 |
| OR 6205 | 4 Engineering | 4 |
|  | Management <br> Graduate <br> elective |  |


| Engineering | 4 Engineering |
| :--- | :--- | :--- |
| Management | Management |
| Graduate | Graduate |


| Bioengineerin | 4 Bioengineerin $\quad 4$ |
| :--- | :--- | :--- |
| Technology | Technology |
| elective 4 | elective 5 |

Total Hours: 152

## Bioengineering, BSBioE/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirements

Minimum 2.000 required in Undergraduate BIOE courses
3.400 GPA required to enter the program

Minimum 3.000 GPA required in all graduate courses

## Mathematics/Science Requirement

Complete 37 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| BIOL 1115 | General Biology 1 for Engineers | 5 |
| :--- | :--- | :--- |
| and BIOL 1116 | and Lab for BIOL 1115 |  |


| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 | 5 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| GE 2361 | Mathematical Methods for Engineers | 4 |
| PHYS 1171 <br> and PHYS 1172 <br> and PHYS 1173 | Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171 | 5 |
| PHYS 1175 <br> and PHYS 1176 <br> and PHYS 1177 | Physics 2 for Bioscience and Bioengineering and Lab for PHYS 1175 and Interactive Learning Seminar for PHYS 1175 | 5 |
| Supplemental Cre |  |  |

1 semester hour from the following course counts toward the 1 mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Bioengineering Core Requirements

Complete 38 semester hours in bioengineering core requirements as indicated below.

## Required Courses

| BIOE 2355 | Quantitative Physiology for <br> Bioengineers | 4 |
| :--- | :--- | :---: |
| BIOE 2365 <br> and BIOE 2366 | Bioengineering Measurement, <br> Experimentation, and Statistics <br> and Lab for BIOE 2365 | 5 |
| BIOE 2350 | Biomechanics | 4 |
| BIOE 3380 | Biomolecular Dynamics and Control | 4 |
| BIOE 3310 | Transport and Fluids for Bioengineers | 4 |
| BIOE 3210 | Bioelectricity | 4 |

Bioengineering Capstone
BIOE $4790 \quad$ Capstone Design $1 \quad 4$
BIOE $4792 \quad 4$

## Supplemental Credit

3 semester hours from the following course count toward the bioengineering core requirements:
GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2
bioengineering core requirements:

$$
\text { GE } 1502 \quad \text { Cornerstone of Engineering } 2
$$

## Concentration

One undergraduate-level course and four graduate-level courses should be taken in one of the following four concentrations for a total of 20 semester hours. Requirements for the concentrations are listed below (p. ).

- Bioimaging and Signal Processing
- Cell and Tissue Engineering
- Biomechanics
- Biomedical Devices

4 Professional Development

| GE 1000 | Introduction to the Study of Engineering |
| :--- | :--- |
| BIOE 2000 | Introduction to Engineering Co-op <br> Education |
| BIOE 3000 Professional Issues in Engineering <br> Additional Required Courses  | 1 |
| The remaining credit from each of the following courses will <br> apply to the professional development area: | 2 |
| GE 1501 | Cornerstone of Engineering 1 |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

| A grade of C or higher is required: |  |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Elective

Complete six academic, nonremedial, nonrepetitive courses, 24 each equivalent to 4 semester hours.

## Graduate Courses taken toward the PlusOne program

BIOE 50001
BIOE 7390 Seminar 0

Complete four courses that will count toward the MS in 16
Bioengineering in consultation with your advisor.

## Course Work That Does Not Count Toward That Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

| CONCENTRATION IN BIOIMAGING AND SIGNAL PROCESSING |
| :--- |
| Required Courses |
| BIOE 5320 |


| BIOE 5235 | Advanced Biomedical Measurements <br> and Instrumentation | 4 |
| :--- | :--- | :--- |
| Elective Courses | Biomedical Imaging | 4 |
| Complete three of the following: |  |  |
| BIOE 2060 | Special Topics in Bioengineering | 12 |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOL 5581 | Biological Imaging |  |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 3468 | Noise and Stochastic Processes |  |
| EECE 4512 | Biomedical Electronics |  |


| EECE 4626 | Image Processing and Pattern <br> Recognition |
| :--- | :--- |
| EECE 5648 | Biomedical Optics |
| EECE 5664 | Biomedical Signal Processing |


| ME 2340 | Introduction to Material Science |
| :--- | :--- |
| and ME 2341 | and Lab for ME 2340 |
| ME 4555 | System Analysis and Control |

## Program Requirement

153 total semester hours required

## Plan of Study <br> Five Years, Two Co-ops in Summer 2/Fall

Year 1

| Elective Courses |  |
| :--- | :--- |
| Complete three of the following: | 12-15 |


| BIOE 2060 | Special Topics in Bioengineering |
| :--- | :--- |
| BIOE 4991 | Research |
| BIOE 4992 | Directed Study |
| BIOE 5430 | Principles and Applications of Tissue <br> Engineering |
| BIOL 2301 <br> and BIOL 2302 | Giomaterials <br> BIOL 2323 <br> and BIOL 2324 |
| CHEM 2313 <br> and CHEM 2314 | and <br> CHME BIOL 2301 <br> and Lab for CHEM 2313 |
| CHME 5899 | Biochemical Engineering |
| ME 5667 | Solid Mechnology |

## CONCENTRATION IN BIOMECHANICS

Required Courses

| ME 5665 | Musculoskeletal Biomechanics | 4 |
| :---: | :---: | :---: |
| BIOE 5630 | Physiological Fluid Mechanics | 4 |
| Elective Courses |  |  |
| Complete three of the following: |  | 12 |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOE 5820 | Biomaterials |  |
| ME 2350 | Engineering Mechanics and Design |  |
| ME 2355 | Mechanics of Materials |  |
| ME 5667 | Solid Mechanics of Cells and Tissues |  |
| ME 4555 | System Analysis and Control |  |

## CONCENTRATION IN BIOMEDICAL DEVICES

Required Courses

| BIOE 5810 | Design of Biomedical Instrumentation | 4 |
| :--- | :--- | ---: |
| BIOE 5820 | Biomaterials | 4 |
| Elective Courses |  |  |
| Complete three of the following: | $12-13$ |  |
| BIOE 2200 |  |  |
| BIOE 2060 | Special Topics in Bioengineering |  |
| BIOE 4991 | Research |  |
| BIOE 4992 | Directed Study |  |
| BIOE 5850 | Design of Implants |  |
| CHME 5160 | Drug Delivery: Engineering Analysis |  |
| EECE 5664 | Biomedical Signal Processing |  |



## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOE 2365 <br> (AD) | 4 BIOE 2000 | 1 Vacation | Co-op |  |
| BIOE 2366 | 1 BIOE 2350 | 4 |  |  |
| BIOL 1115 <br> (ND) | 4 BIOE 2355 | 4 |  |  |
| BIOL 1116 | 1 CHEM 2311 | 4 |  |  |
| GE 2361 | 4 CHEM 2312 | 1 |  |  |
| PHYS 1175 <br> (ND) | 3 CHEM 2319 | 0 |  |  |
| PHYS 1176 <br> (AD) | 1 General elective | 4 |  |  |
| PHYS 1177 | 1 |  |  |  |
|  | 19 | 18 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | BIOE 3210 | 4 BIOE 3310 | 4 Co-op |  |
|  | BIOE 3380 | 4 General | 4 |  |
|  | Elective |  |  |  |
|  | BioE Elective | 4 |  |  |
|  | ENGW 3302 <br> (WD) | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | BIOE 3000 | 1 BIOE 4790 | 4 Vacation |  |
|  | (EI, CE) |  |  |  |
|  | Graduate <br> Elective | 4 General | 4 |  |
|  | Elective |  |  |  |
|  | Graduate | 4 |  |  |
|  | Elective |  |  |  |


| Graduate <br> Elective | 4 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| General <br> Elective | 4 |  |  |  |
| BIOE 5000 | 1 | 8 | 0 |  |
| BIOE 7390 | 0 | 8 | 18 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| Graduate Elective | 4 BIOE 4792 | 4 |
| Graduate Elective | 4 Graduate Elective | 4 |
| Graduate Elective | 4 Graduate Elective | 4 |
| General Elective | 4 General Elective | 4 |
| BIOE 7390 | 0 BIOE 7390 | 0 |
|  | 16 | 16 |

Total Hours: 153

## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) | 4 MATH 1342 (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1171 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1172 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1173 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| BIOE 2000 | 1 Co-op | Co-op | Vacation |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| BIOE 2350 | 4 Co-op | Co-op | BIOE 3310 | 4 |


| BIOE 2355 | 4 | General <br> Elective |  |
| :--- | :--- | :--- | :--- |
| CHEM 2311 | 4 |  |  |
| CHEM 2312 | 1 |  |  |
| CHEM 2319 | 0 |  | 8 |
| General <br> elective | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOE 3000 | 1 Graduate Elective | 4 Vacation | BIOE 4790 <br> (EI, CE) | 4 |
| BIOE 3210 | 4 Graduate Elective | 4 | General Elective | 4 |
| BIOE 3380 | 4 Graduate Elective | 4 |  |  |
| BioE Elective | 4 General Elective | 4 |  |  |
| ENGW 3302 (WD) | 4 BIOE 5000 | 1 |  |  |
| BIOE 7390 | 0 BIOE 7390 | 0 |  |  |
|  | 17 | 17 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| BIOE 4792 | Graduate <br> Elective | 4 |
| Graduate <br> Elective | 4 Graduate <br> Elective | 4 |
| Graduate <br> Elective | 4 Graduate <br> Elective | 4 |
| General <br> Elective | General <br> Elective | 4 |
| BIOE 7390 | 16 | 0 |

Total Hours: 153

## Chemical Engineering

Website (http://www.northeastern.edu/che)

## Thomas J. Webster, PhD

Professor and Chair
Art Zafiropoulo Chair in Engineering

## Ronald J. Willey, PhD

Professor and Vice Chair
313 Snell Engineering Center
617.373.2989
617.373 .2209 (fax)

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 chemical, 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 engineering is to develop new products and to design processes while reducing costs, increasing production, and improving the quality and safety of new products.

The program educational objectives are as follows. Within a few years after graduation, graduates of the chemical engineering program are expected to obtain the ability to:

1. Function successfully in a variety of fields in chemical engineering or in advanced study that uses the problem-solving skills taught in chemical engineering.
2. Identify problems, collect necessary information, and analyze data to draw appropriate conclusions and to make informed decisions.
3. Function effectively in a diverse workplace using interpersonal and communicative skills gained from their chemical engineering training.
4. Recognize an economic, environmental, health and safety, or sustainability situation in need of improvement, then make suggestions that improve this situation.

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 apply knowledge of mathematics, science, and engineering in the general field of chemical engineering; design and conduct engineering experiments, as well as analyze and interpret data; design a system, component, or chemical process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability; function on teams, including multidisciplinary teams; identify, formulate, and solve chemical engineering problems; understand professional and ethical responsibility, including protecting the public and the environment by performing work in a safe and environmentally conscious manner; communicate effectively; understand the impact of engineering solutions in a global
and societal context; recognize the need for and the ability to engage in lifelong learning; understand professional behavior, culture, expectations, and contemporary issues; and use the techniques, skills, and modern engineering tools necessary to chemical engineering practice.

The chemical engineering curriculum 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.

## Programs

## Bachelor of Science in Chemical Engineering (BSCHE)

- Chemical Engineering (p. 350)
- Chemical Engineering and Physics (p. 353)


## Dual Degrees

- BS/MS in Chemical Engineering (p. 355)
- Chemical Engineering, BS/ Engineering Management, MS (p. 358)


## Minor

- Biochemical Engineering (p. 361)


## Chemical Engineering, BSCHE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum required in CHME courses

## Mathematics/Science Requirement

Complete 31 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |


| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 | 5 |
| :---: | :---: | :---: |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  |  |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Advanced Science Requirement |  |  |
| Complete 18 semester hours in advanced science as indicated below: |  |  |
| $\begin{aligned} & \text { BIOL } 1111 \\ & \quad \text { or BIOL } 1115 \end{aligned}$ | General Biology 1 <br> General Biology 1 for Engineers | 4 |
| Complete one of the following: |  | 5 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 |  |
| CHEM 2315 and CHEM 2316 and CHEM 2324 | Organic Chemistry 1 for Chemistry Majors <br> and Lab for CHEM 2315 <br> and Recitation for CHEM 2315 |  |
| Complete one of the following: |  | 5 |
| CHEM 2313 and CHEM 2314 and CHEM 2320 | Organic Chemistry 2 and Lab for CHEM 2313 <br> and Recitation for CHEM 2313 |  |
| CHEM 2317 <br> and CHEM 2318 <br> and CHEM 2325 | Organic Chemistry 2 for Chemistry Majors and Lab for CHEM 2317 and Recitation for CHEM 2317 |  |
| Complete one of the following: |  | 4-6 |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| BIOL 2323 <br> and BIOL 2324 | and |  |
| BIOL 2327 | Human Parasitology |  |
| BIOL 3603 | Mammalian Systems Physiology |  |
| EEMB 2302 <br> and EEMB 2303 | Ecology and Lab for EEMB 2302 |  |
| EEMB 2610 and EEMB 2611 | Plant Biology and Lab for EEMB 2610 |  |
| CHEM 2321 and CHEM 2322 | Analytical Chemistry and Lab for CHEM 2321 |  |
| CHEM 2331 and CHEM 2332 | Bioanalytical Chemistry and Lab for CHEM 2331 |  |
| CHEM 2341 and CHEM 2342 | Forensic Chemistry 1 and Lab for CHEM 2341 |  |
| CHEM 3403 and CHEM 3404 | Quantum Chemistry and Spectroscopy and Lab for CHEM 3403 |  |
| CHEM 4621 and CHEM 4622 | Introduction to Chemical Biology and Lab for CHEM 4621 |  |
| CHEM 4628 and CHEM 4629 | Introduction to Spectroscopy of Organic Compounds and Identification of Organic Compounds |  |
| PHYS 2303 | Modern Physics |  |
| PHYS 3601 | Classical Dynamics |  |

## 5 Engineering

Complete 49 semester hours in engineering as indicated below

| CHME 2308 | Conservation Principles in Chemical <br> Engineering | 4 |
| :--- | :--- | ---: |
| CHME 2310 | Transport Processes 1 | 4 |
| CHME 2311 | Lab for CHME 2310 | 2 |
| CHME 2320 | Chemical Engineering Thermodynamics | 4 |
|  | 1 | 4 |
| CHME 3312 | Transport Processes 2 and Separations | 4 |
| CHME 3313 | Lab for CHME 3312 | 2 |
| CHME 3322 | Chemical Engineering Thermodynamics | 4 |
|  | 2 | 4 |
| CHME 4510 | Chemical Engineering Kinetics | 4 |
| CHME 4512 | Chemical Engineering Process Control | 4 |
| CHME 4701 | Capstone Design 1: Process Analysis | 4 |
| CHME 4703 | Capstone Design 2: Chemical Process | 4 |
|  | Design |  |

## Advanced Engineering Elective

Complete one course numbered between 4000 and 5999 in
any of the following subject areas:
CHME, CIVE, EECE, ME, IE, MEIE, and ENGR.

## Supplemental Credit

3 semester hours from the following course count toward the 3 engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2 engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

Complete 5 semester hours in professional development as indicated below

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| CHME 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| CHME 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

A grade of C or higher is required:
ENGW 1111 First-Year Writing 4
ENGW 3302 Advanced Writing in the Technical 4 Professions
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete six academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours

## Course Work That Does Not Count Toward The Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

135 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CHEM 2311 } & 4 \text { CHME 2000 }\end{array} \begin{array}{c}1 \\ \text { Vacation }\end{array}\right)$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CHME 3313 | 2 General | 4 Co-op | 0 |
|  | $(A D$, WI) | Elective |  |  |
|  | CHME 3312 | 4 ENGW 3302 | 4 |  |
|  |  | (WD) |  |  |
|  | CHME 3322 | 4 |  |  |


| BIOL 1115 <br> (ND) | 4 |  |  |
| :---: | :---: | :---: | :---: |
| 0 | 14 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 |  |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CHME 3000 | 1 General <br> Elective | 4 Co-op |$\quad$| Hours |
| ---: |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CHME 4512 | 4 |
|  | CHME 4703 <br> (EI, CE) | 4 |
|  | General <br> Elective | 4 |
|  | Advanced <br> Engineering <br> Elective | 4 |
| 0 | 16 |  |

Total Hours: 135

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | MATH 1341 | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| MATH 2321 | 4 Co-op | 0 Co-op | 0 CHEM 2313 | 4 |
| (FQ) |  |  |  |  |


| CHME 2308 | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 19 | 0 | 0 | 9 |


| Year 3 |  |  | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CHME 3000 | 1 Co-op | 0 Co-op | 0 Vacation | 0 |
| CHME 3312 | 4 |  |  |  |
| CHME 3313 (AD, WI) | 2 |  |  |  |
| General Elective | 4 |  |  |  |
| Advanced Science Elective | 4 |  |  |  |
|  | 15 | 0 | 0 | 0 |

## Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| CHME 4510 | 4 | CHME 4512 | 4 |
| CHME 4701 |  | CHME 4703 <br> (EI, CE) | 4 |
| General Elective |  | General Elective | 4 |
| General Elective |  | Advanced <br> Engineering Elective | 4 |
| 16 |  |  | 16 |

Total Hours: 135

## Chemical Engineering and Physics, BSCHE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum required in CHME courses

## Mathematics/Science Requirement

Complete 47 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 | 5 |
| PHYS 2371 and PHYS 2372 | Electronics and Lab for PHYS 2371 | 4 |
| PHYS 3601 | Classical Dynamics | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |
| Supplemental Credit |  |  |
| 1 semester hour mathematics/sci | the following course counts toward the requirement: | 1 |

$$
\text { GE } 1502 \quad \text { Cornerstone of Engineering } 2
$$

## Advanced Chemistry Requirement

Complete 22 semester hours in advanced chemistry as indicated below.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \text { Hours } \\ \text { BIOL 1111 } \\ \text { or BIOL 1115 }\end{array} \quad \begin{array}{ll}\text { General Biology 1 } \\ \text { CHEM 2311 } \\ \text { and CHEM 2312 } \\ \text { and CHEM 2319 }\end{array} \quad \begin{array}{l}\text { Organic Chemistry 1 } \\ \text { and Lab for CHEM 2311 } \\ \text { and Recitation for CHEM 2311 }\end{array}\right] 5$

Total Hours

## Engineering

Complete 49 semester hours in engineering as indicated below.

Code Title Hours

Required Engineering
PHYS 3600 Advanced Physics Laboratory



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CHME 4703 <br> (EI, CE) | 4 |
|  | PHYS 5115 <br> (ND, FQ) | 4 |
|  | PHYS 5318 <br> (ND, AD, CE) | 4 |
|  | Advanced <br> engineering <br> elective | 4 |
|  | 0 | 16 |

Total Hours: 139

## Chemical Engineering, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

Minimum 2.000 GPA required in CHME courses
Minimum 3.000 GPA required in all graduate courses

## Mathematics/Science Requirement

Complete 31 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 | General Chemistry for Engineers |  |
| :--- | :--- | :--- |
| and CHEM 1153 | and Recitation for CHEM 1151 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |


| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| :--- | :--- | ---: |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for | 5 |
| PHYS 1155 <br> PHYS 1151 <br> and PHYS 1156 PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 | 5 |

## Supplemental Credit

1 semester hour from the following course counts toward the 1 mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Advanced Science Requirement

Complete 18 semester hours in advanced science as indicated below:

| BIOL 1111 |  |  |
| :--- | :--- | :--- |
| or BIOL 1115 | General Biology 1 <br> General Biology 1 for Engineers | 4 |
| Complete one of the following: |  |  |$\quad 5$

Complete one of the following: 5
CHEM 2313 Organic Chemistry 2
and CHEM 2314 and Lab for CHEM 2313
and CHEM 2320 and Recitation for CHEM 2313
CHEM $2317 \quad$ Organic Chemistry 2 for Chemistry
and CHEM 2318 Majors
and CHEM 2325 and Lab for CHEM 2317 and Recitation for CHEM 2317
Complete one of the following: 4-5
BIOL 2301 Genetics and Molecular Biology
and BIOL 2302 and Lab for BIOL 2301
BIOL 2323 and
and BIOL 2324
BIOL 2327 Human Parasitology
BIOL 3603 Mammalian Systems Physiology
CHEM 2321 Analytical Chemistry
and CHEM 2322 and Lab for CHEM 2321
CHEM 2331 Bioanalytical Chemistry
and CHEM 2332 and Lab for CHEM 2331
CHEM 2341 Forensic Chemistry 1
and CHEM 2342 and Lab for CHEM 2341
CHEM 3403 Quantum Chemistry and Spectroscopy
and CHEM 3404 and Lab for CHEM 3403
CHEM 4621 Introduction to Chemical Biology
and CHEM 4622 and Lab for CHEM 4621
CHEM 4628 Introduction to Spectroscopy of
and CHEM 4629 Organic Compounds
and Identification of Organic
Compounds

| PHYS 2303 | Modern Physics |
| :--- | :--- |
| PHYS 3601 | Classical Dynamics |

## Engineering

| CHME 2308 | Conservation Principles in Chemical Engineering | 4 |
| :---: | :---: | :---: |
| CHME 2310 and CHME 2311 | Transport Processes 1 and Lab for CHME 2310 | 6 |
| CHME 2320 | Chemical Engineering Thermodynamics 1 | 4 |
| CHME 3312 <br> and CHME 3313 | Transport Processes 2 and Separations and Lab for CHME 3312 | 6 |
| CHME 3322 | Chemical Engineering Thermodynamics $2$ | 4 |
| CHME 4510 | Chemical Engineering Kinetics | 4 |
| CHME 4512 | Chemical Engineering Process Control | 4 |
| CHME 4701 | Capstone Design 1: Process Analysis | 4 |
| CHME 4703 | Capstone Design 2: Chemical Process Design | 4 |

## Supplemental Credit

3 semester hours from the following course count toward the
engineering requirement:

GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2 engineering requirement:

GE 1502
Cornerstone of Engineering 2

## Professional Development

Complete 5 semester hours in professional development as indicated below

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :---: | :---: | :---: |
| CHME 2000 | Introduction to Engineering Co-op Education | 1 |
| CHME 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will apply to the professional development area: |  | 2 |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Additional NUpath Courses |  |  |
| Complete 16 semester hours in core courses as indicated below |  |  |
| Writing |  |  |
| A grade of C or higher is required: |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |

Required Open Electives

NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI), Differences and Diversity (DD), and Ethical Reasoning (ER) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use Open Electives and/or 4 General Electives to do so. Open and General Electives are academic, nonremedial, nonrepetitive courses.

## Required General Elective

Complete one academic, nonremedial, nonrepetitive course equivalent to 4 semester hours.

## Graduate Courses taken toward the PlusOne program

## Required Graduate Courses

| CHME 7320 | Chemical Engineering Mathematics | 4 |
| :--- | :--- | ---: |
| CHME 7330 | Chemical Engineering Thermodynamics | 4 |
| CHME 7340 | Chemical Engineering Kinetics | 4 |
| CHME 7350 | Transport Phenomena | 4 |
| Complete 16 semester hours from the following course list. <br> One course must be a Chemical Engineering Special Topics <br> course and will count as an Advanced Engineering Elective. | 16 |  |


| CHME 5204 | Heterogeneous Catalysis |
| :--- | :--- |
| CHME 5630 | Biochemical Engineering |
| CHME 5699 | Special Topics in Chemical Engineering |
| CHME 5984 | Research |
| CHME 7201 | Fluid Mechanics |
| CHME 7202 | Chemical Process Heat Transfer |
| CHME 7205 | Numerical Techniques in Chemical |
| CHME 7210 | Engineering |
| CHME 7220 | Calculations |
| CHME 7221 | Nanostronic Materials, Thin Films, and |
| CHME 7222 | Principals of Membrane Processes |
| CHME 7231 | Chemical Process Dynamics and <br> Control |
| CHME 7240 | Polymer Science |
| CHME 7260 | Special Topics in Chemical Engineering |
| CHME 7261 | Special Topics in Chemical Engineering <br> CHME 7978 |
| Independent Study |  |
| ENGR 5670 6150 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage <br> Nanotechnology in Engineering |

## Course Work That Does Not Count Toward The Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirements

151 semester hours required

## Plan of Study

## Five Years, Two Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ |  | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | Open elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 2341 | 4 Vacation | Co-op |  |
| CHEM 2311 | 4 | CHEM 2313 | 4 |  |  |
| CHEM 2312 | 1 | CHEM 2314 | 1 |  |  |
| CHEM 2319 | 0 | CHEM 2320 | 0 |  |  |
| $\begin{aligned} & \text { PHYS } 1155 \\ & \text { (ND) } \end{aligned}$ | 3 | CHME 2000 | 1 |  |  |
| PHYS 1156 <br> (AD) | 1 | CHME 2310 | 4 |  |  |
| PHYS 1157 |  | CHME 2311 <br> (AD, WI) | 2 |  |  |
| CHME 2308 | 4 | CHME 2320 | 4 |  |  |
|  | 18 |  | 20 | 0 | 0 |

$\left.\begin{array}{lcccc}\begin{array}{l}\text { Year 3 } \\ \text { Fall } \\ \text { Co-op }\end{array} & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ & \begin{array}{llll}\text { BIOL 1115 } \\ \text { (ND) }\end{array} & \begin{array}{c}\text { 4 ENGW 3302 } \\ \text { or 3315 (WD) }\end{array} & 4 \text { Co-op }\end{array}\right]$

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CHME 3000 | 1 Graduate Elective | 4 Vacation |  |
|  | CHME 4510 | 4 Graduate Elective | 4 |  |
|  | CHME 4701 | 4 |  |  |
|  | CHME 7350 | 4 |  |  |
|  | Advanced <br> Science <br> Elective | 4 |  |  |
|  | 0 | 17 | 8 | 0 |


| Year 5 |  |  |
| :--- | ---: | ---: |
| Fall | Hours Spring | Hours |
| CHME 7320 | 4 CHME 4512 | 4 |


| CHME 7330 | 4 CHME 4703 <br> (EI, CE) | 4 |
| :--- | :---: | :--- |
| General <br> Elective | 4 CHME 7340 | 4 |
| Graduate <br> Elective | Graduate <br> CHME <br> Special <br> Topics | 4 |

$16 \quad 16$

Total Hours: 151

## Five Years, Two Co-ops in Spring/Summer 1

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | $\begin{aligned} & 4 \text { PHYS } 1151 \\ & \text { (ND) } \end{aligned}$ | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 Open elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 Co-op | Co-op | CHEM 2313 | 4 |
| CHEM 2311 | 4 |  | CHEM 2314 | 1 |
| CHEM 2312 | 1 |  | CHEM 2320 | 0 |
| CHEM 2319 | 0 |  | CHME 2320 | 4 |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| CHME 2000 | 1 |  |  |  |
| CHME 2308 | 4 |  |  |  |
|  | 19 | 0 | 0 | 9 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 Co-op | Co-op | ENGW 3302 <br> or 3315 (WD) | 4 |
| BIOL 1115 <br> (ND) | 4 | Open <br> elective | 4 |  |
| CHME 2310 | 4 |  |  |  |
| CHME 2311 <br> (AD, WI) | 2 |  |  |  |
| CHME 3322 | 4 |  | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | :---: |
| CHME 3000 | 1 CHME 4510 | 4 Vacation | Vacation |  |
| CHME 3312 | 4 CHME 7350 | 4 |  |  |


| CHME 3313 <br> (AD, WI) |  | Graduate Elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CHME 7320 |  | Graduate Elective | 4 |  |  |
| Advanced <br> Science <br> Elective | 4 |  |  |  |  |
|  | 15 |  | 16 | 0 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| CHME 4701 | 4 | CHME 4512 | 4 |  |  |
| CHME 7330 | 4 | CHME 4703 <br> (EI, CE) | 4 |  |  |
| Graduate Elective | 4 | CHME 7340 | 4 |  |  |
| General Elective |  | Graduate <br> CHME <br> Special <br> Topics | 4 |  |  |
|  | 16 |  | 16 |  |  |

Total Hours: 151

## Chemical Engineering, BS/ Engineering Management, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

Minimum 2.000 GPA required in CHME courses
Minimum 3.000 GPA required in all graduate courses

## Mathematics/Science Requirement

Complete 31 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 | General Chemistry for Engineers <br> and CHEM 1153 <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | :--- |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |


| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| :--- | :--- | :--- |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for <br> PHYS 1151 | 5 |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 | 5 |
| Supplemental Credit |  |  |

GE 1502 Cornerstone of Engineering 2

## Advanced Science Requirement

Complete 18 semester hours in advanced science as indicated below:

| $\begin{aligned} & \text { BIOL } 1111 \\ & \quad \text { or BIOL } 1115 \end{aligned}$ | General Biology 1 <br> General Biology 1 for Engineers | 4 |
| :---: | :---: | :---: |
| Complete one of the following: |  | 5 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 |  |
| CHEM 2315 <br> and CHEM 2316 <br> and CHEM 2324 | Organic Chemistry 1 for Chemistry Majors and Lab for CHEM 2315 and Recitation for CHEM 2315 |  |

Complete one of the following: 5
CHEM $2313 \quad$ Organic Chemistry 2
and CHEM 2314 and Lab for CHEM 2313
and CHEM 2320 and Recitation for CHEM 2313
CHEM $2317 \quad$ Organic Chemistry 2 for Chemistry
and CHEM 2318 Majors
and CHEM 2325 and Lab for CHEM 2317
and Recitation for CHEM 2317
Complete one of the following: 4-5
BIOL 2301 Genetics and Molecular Biology
and BIOL 2302 and Lab for BIOL 2301
BIOL 2323 and
and BIOL 2324
BIOL 2327 Human Parasitology
BIOL 3603 Mammalian Systems Physiology
CHEM 2321 Analytical Chemistry
and CHEM 2322 and Lab for CHEM 2321
CHEM 2331 Bioanalytical Chemistry
and CHEM 2332 and Lab for CHEM 2331
CHEM 2341 Forensic Chemistry 1
and CHEM 2342 and Lab for CHEM 2341
CHEM 3403 Quantum Chemistry and Spectroscopy
and CHEM 3404 and Lab for CHEM 3403
CHEM 4621 Introduction to Chemical Biology
and CHEM 4622 and Lab for CHEM 4621
CHEM 4628 Introduction to Spectroscopy of
and CHEM 4629 Organic Compounds
and Identification of Organic
Compounds
PHYS 2303 Modern Physics

##  <br> -




PHYS 3601 Classical Dynamics

## Engineering

Complete 48 semester hours in engineering as indicated below

| CHME 2308 | Conservation Principles in Chemical Engineering |
| :---: | :---: |
| CHME 2310 and CHME 2311 | Transport Processes 1 and Lab for CHME 2310 |
| CHME 2320 | Chemical Engineering Thermodynamics 1 |
| CHME 3312 <br> and CHME 3313 | Transport Processes 2 and Separations and Lab for CHME 3312 |
| CHME 3322 | Chemical Engineering Thermodynamics $2$ |
| CHME 4510 | Chemical Engineering Kinetics |
| CHME 4512 | Chemical Engineering Process Control |
| CHME 4701 | Capstone Design 1: Process Analysis |
| CHME 4703 | Capstone Design 2: Chemical Process Design |
| Supplemental Credit |  |
| 3 semester hours from the following course count toward the engineering requirement: |  |
| GE 1501 | Cornerstone of Engineering 1 |
| 2 semester hours from the following course count toward the engineering requirement: |  |
| GE 1502 | Cornerstone of Engineering 2 |

## Professional Development

Complete 6 semester hours in professional development as indicated below

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | ---: |
| CHME 2000 | Introduction to Engineering Co-op <br> Education |  |
| CHME 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will |  |  |
| apply to the professional development area: |  |  |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 | 2 |

## Additional NUpath Courses

## Writing

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Elective

Complete three academic, nonremedial, nonrepetitive
courses, each equivalent to 4 semester hours.
Graduate Courses Taken for the Plus One Program
Required Graduate Courses

| EMGT 5220 | Engineering Project Management | 4 |
| :--- | :--- | ---: |
| EMGT 6225 | Economic Decision Making | 4 |
| IE 6200 | Engineering Probability and Statistics | 4 |
|  | (This course counts as an Advanced |  |
|  | Engineering Elective) |  |
| OR 6205 | Deterministic Operations Research | 4 |

Graduate Technical Electives
Complete 16 semester hours from the following 16

| CSYE 6200 | Concepts of Object-Oriented Design |
| :---: | :---: |
| CSYE 6205 | Concepts of Object-Oriented Design with C++ |
| CSYE 6210 | Component Software Development |
| CSYE 6220 | Enterprise Software Design |
| CSYE 7230 | Software Engineering |
| CSYE 7270 | Building Virtual Environments |
| CSYE 7280 | User Experience Design and Testing |
| ENSY 5000 | Fundamentals of Energy System Integration |
| EMGT 5300 | Engineering/Organizational Psychology |
| EMGT 6305 | Financial Management for Engineers |
| EMGT 7978 | Independent Study |
| ENTR 6200 | Enterprise Growth and Innovation |
| ENTR 6212 | Business Planning for New Ventures |
| ENTR 6218 | Business Model Design and Innovation |
| ENTR 6219 | Financing Ventures from Early Stage to Exit |
| GE 5100 | Product Development for Engineers |
| IE 5400 | Healthcare Systems Modeling and Analysis |
| IE 5500 | Systems Engineering in Public Programs |
| IE 5617 | Lean Concepts and Applications |
| IE 5620 | Mass Customization |
| IE 5640 | Data Mining for Engineering Applications |
| IE 6300 | Manufacturing Methods and Processes |
| IE 7200 | Supply Chain Engineering |
| IE 7215 | Simulation Analysis |
| IE 7255 | Manufacturing Processes |
| IE 7270 | Intelligent Manufacturing |
| IE 7275 | Data Mining in Engineering |
| IE 7280 | Statistical Methods in Engineering |
| IE 7285 | Statistical Quality Control |
| IE 7290 | Reliability Analysis and Risk Assessment |
| IE 7315 | Human Factors Engineering |
| IE 7615 | Neural Networks in Engineering |
| INFO 6210 | Data Management and Database Design |


| INFO 6215 | Business Analysis and Information Engineering |
| :---: | :---: |
| INFO 6245 | Planning and Managing Information Systems Development |
| INFO 7245 | Agile Software Development |
| INFO 7260 | Business Process Engineering |
| INFO 7275 | Advanced Database Management Systems |
| INFO 7285 | Organizational Change and IT |
| INFO 7290 | Data Warehousing and Business Intelligence |
| INFO 7330 | Information Systems for HealthcareServices Delivery |
| INFO 7365 | Enterprise Architecture Planning and Management |
| INFO 7390 | Advances in Data Sciences and Architecture |
| MGSC 6206 | Management of Service and Manufacturing Operations |
| OR 7230 | Probabilistic Operation Research |
| OR 7235 | Inventory Theory |
| OR 7240 | Integer and Nonlinear Optimization |
| OR 7245 | Network Analysis and Advanced Optimization |
| OR 7250 | Multi-Criteria Decision Making |
| OR 7310 | Logistics, Warehousing, and Scheduling |
| SCHM 6212 | Executive Roundtable in Supply Chain Management |
| SCHM 6214 | Sourcing and Procurement |
| SCHM 6215 | Supply Chain Analytics |
| SCHM 6221 | Sustainability and Supply Chain Management |
| SCHM 6222 | Managing Emerging Issues in Supply Chain Management |
| SCHM 6223 | Managing Healthcare Supply Chain Operations |
| SCHM 6224 | Demand Planning and Forecasting |
| TECE 6200 | Innovation and Entrepreneurial Growth |
| TECE 6222 | Emerging and Disruptive Technologies |
| TECE 6230 | Entrepreneurial Marketing and Selling |
| TECE 6250 | Lean Design and Development |
| TECE 6300 | Managing a Technology-Based Business |
| TECE 6340 | The Technical Entrepreneur as Leader |
| TELE 5310 | Fundamentals of Communication Systems |
| TELE 5330 | Data Networking |

## Course Work That Does Not Count Toward The Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

Program Requirements
151 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | 4 MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 MATH 2341 | 4 Vacation | Co-op |  |
| CHEM 2311 | 4 CHEM 2313 | 4 |  |  |
| CHEM 2312 | 1 CHEM 2314 | 1 |  |  |
| CHEM 2319 | 0 CHEM 2320 | 0 |  |  |
| PHYS 1155 <br> (ND) | 3 CHME 2000 | 1 |  |  |
| PHYS 1156 <br> (AD) | 1 CHME 2310 | 4 |  |  |
| PHYS 1157 | $\begin{aligned} & 1 \text { CHME } 2311 \\ & (A D, \text { WI) } \end{aligned}$ | 2 |  |  |
| CHME 2308 | 4 CHME 2320 | 4 |  |  |
|  | 18 | 20 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | BIOL 1115 <br> (ND) | $\begin{aligned} & 4 \text { ENGW } 3302 \\ & \text { (WD) } \end{aligned}$ | 4 Co-op |  |
|  | CHME 3312 | 4 General Elective | 4 |  |
|  | CHME 3313 <br> (AD, WI) | 2 |  |  |
|  | CHME 3322 | 4 |  |  |
|  | 0 | 14 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | Advanced <br> Science <br> Elective | 4 IE 6200 | 4 Vacation |  |
|  | CHME 3000 | 1 Graduate MSEM Elective | 4 |  |
|  | CHME 4510 | 4 |  |  |
|  | CHME 4701 | 4 |  |  |
|  | OR 6205 | 4 |  |  |
|  | 0 | 17 | 8 | 0 |


| Year 5 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours |  |  |
| General Elective | 4 | CHME 4512 | 4 |  |  |
| EMGT 5220 | 4 | $\begin{aligned} & \text { CHME } 4703 \\ & \text { (EI, CE) } \end{aligned}$ | 4 |  |  |
| EMGT 6225 |  | Graduate <br> MSEM <br> Elective | 4 |  |  |
| Graduate <br> MSEM <br> Elective |  | Graduate <br> MSEM <br> Elective | 4 |  |  |
|  | 16 |  | 16 |  |  |
| Total Hours: 151 |  |  |  |  |  |
| Five Years, Two Co-ops in Spring/Summer 1 |  |  |  |  |  |
| Year 1 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $4$ | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & (W F) \end{aligned}$ |  | General Elective | 4 |  |  |
| 17 |  |  | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CHME 2000 | 1 Co-op | Co-op | CHEM 2313 | 4 |
| MATH 2321 <br> (FQ) | 4 |  | CHEM 2314 | 1 |
| CHEM 2311 | 4 |  |  |  |
| CHEM 2312 | 1 |  |  |  |
| CHEM 2319 | 0 |  |  |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  | 9 |
| CHME 2308 | 4 | 0 | 0 | 9 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2341 | 4 Co-op | Co-op | ENGW 3302 <br> (WD) | 4 |
| CHME 2310 | 4 |  | General Elective | 4 |
| CHME 2311 <br> (AD, WI) | 2 |  |  |  |
| BIOL 1115 <br> (ND) | 4 |  |  |  |
| CHME 3322 | 4 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Advanced | 4 CHME 4510 | 4 Vacation | Vacation |  |
| Science |  |  |  |  |
| Elective |  |  |  |  |
| CHME 3000 | 1 OR 6205 | 4 |  |  |
| CHME 3312 | 4 IE 6200 | 4 |  |  |
| CHME 3313 <br> (AD, WI) | 2 Graduate MSEM Elective | 4 |  |  |
| EMGT 5220 | 4 |  |  |  |
|  | 15 | 16 | 0 | 0 |

Year 5
$\left.\begin{array}{lcc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \text { CHME 4701 } & 4 \text { CHME 4512 }\end{array} 4^{4} \begin{array}{l}\text { CHME 4703 } \\ \text { (EI, CE) }\end{array}\right)$
$16 \quad 16$
Total Hours: 151

## Biochemical Engineering, Minor

Complete all courses listed below unless otherwise indicated.
Also complete any corequisite labs, recitations, clinicals, or tools courses where specified. Note: Courses taken pass/fail cannot be used to fulfill minor requirements.

## Required Breadth Courses

| MATH 1241 or MATH 1341 | Calculus 1 <br> Calculus 1 for Science and Engineering | 4 |
| :---: | :---: | :---: |
| MATH 1242 or MATH 1342 | Calculus 2 <br> Calculus 2 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| BIOL 2323 and BIOL 2324 | and | 5 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 | 5 |
| CHEM 2313 <br> and CHEM 2314 <br> and CHEM 2320 | Organic Chemistry 2 and Lab for CHEM 2313 and Recitation for CHEM 2313 | 5 |
| Complete one of the following: |  | 5 |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | 5 |
| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | 5 |

## Required Chemical Engineering Courses

| CHME 2308 | Conservation Principles in Chemical <br> Engineering |
| :--- | :--- |
| CHME 2310 | Transport Processes 1 |
| CHME 3312 | Transport Processes 2 and Separations |
| CHME 5630 | Biochemical Engineering |
| Capstone | Capstone Design 2: Chemical Process <br> Design |

## GPA Requirement

2.000 GPA required in the minor

## Civil and Environmental Engineering

Website (http://www.civ.neu.edu)
Jerome F. Hajjar, PhD, PE
CDM Smith Professor and Chair
400 Snell Engineering Center
617.373.2444
617.373 .4419 (fax)

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 at Northeastern University seeks to prepare students to contribute to society as civil engineers and in other professions that benefit from a technical education. Our goal is to graduate students who will be technically competent, creative, critical thinkers, and skilled as communicators. Their educational background qualifies them to seek licensure as professional engineers and/or to pursue graduate study in civil engineering. They have an opportunity to obtain a broad knowledge base in science, engineering, and general studies that allows them flexibility in career development and graduate education. At the same time, our graduates should be responsible and scientifically educated citizens, prepared to contribute personally as well as professionally to an educated, democratic society.

By participating in our cooperative education program, our graduates will have an opportunity to explore what career objectives fit their own skills and interests. The goal of this program is to offer students valuable professional experience and contacts that will help get them started in their professional career, as well as the development of career management skills.

The program educational objectives are as follows. The civil engineering program at Northeastern University seeks to prepare graduates to contribute to society as civil engineers and in other professions that benefit from a technical education. Within a few years of graduation, many of our graduates will be working in responsible engineering positions that will qualify them to take the PE exam, and they will be
prepared to successfully pursue advanced study in civil engineering and
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.

## Programs

## Bachelor of Science in Civil Engineering (BSCE) <br> - Civil Engineering (p. 362)

## Dual Degree

- Civil Engineering, BS/MS (p. 365)
- Civil Engineering, BS/Engineering Management, MS (p. 369)
- Civil Engineering, BS/Sustainable Building Systems, MS (p. 373)


## Civil Engineering, BSCE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum required in CIVE courses

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete one of the following:

| CHEM 1151 | General Chemistry for Engineers |
| :--- | :--- |
| and CHEM 1153 | and Recitation for CHEM 1151 |
| CHEM 1211 | General Chemistry 1 |
| and CHEM 1212 | and Lab for CHEM 1211 |
| and CHEM 1213 | and Recitation for CHEM 1211 |


| CHEM 1214 <br> and CHEM 1215 <br> and CHEM 1216 | General Chemistry 2 <br> and Lab for CHEM 1214 <br> and Recitation for CHEM 1214 |  |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| Complete one of the following: |  | 5 |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 and PHYS 1163 | Physics 1 and Lab for PHYS 1161 and Recitation for PHYS 1161 |  |
| Science Elective |  |  |
| Complete one of the following: |  | 4-5 |
| BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |  |
| BIOL 1115 <br> and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 |  |
| BIOL 1117 <br> and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 |  |
| BIOL 1121 <br> and BIOL 1122 | Basic Microbiology and Lab for BIOL 1121 |  |
| BIOL 1141 | Microbes and Society |  |
| BIOL 1143 | Biology and Society |  |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 |  |
| CHEM 2321 and CHEM 2322 | Analytical Chemistry and Lab for CHEM 2321 |  |
| CHEM 3401 | Chemical Thermodynamics and Kinetics |  |
| ENVR 1101 | Environmental Science |  |
| ENVR 1110 | Global Climate Change |  |
| ENVR 1111 | Weather and Climate |  |
| ENVR 1120 | Oceans and Coasts |  |
| ENVR 1200 | Dynamic Earth |  |
| ENVR 1202 | History of Earth and Life |  |
| ENVR 2310 | Earth Materials |  |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |  |
| ENVR 3302 and ENVR 3303 | Introduction to Remote Sensing and Lab for ENVR 3302 |  |
| ENVR 3400 | Field Geology |  |
| ENVR 3418 | Geophysics |  |
| ENVR 4505 | Wetlands |  |
| ENVR 4515 | Sustainable Development |  |
| ENVR 5250 | Geology and Land-Use Planning |  |
| ENVR 5280 |  |  |
| ENVR 5282 |  |  |
| ENVR 5290 | Engineering Geology |  |
| PHYS 1111 | Astronomy |  |
| PHYS 2303 | Modern Physics |  |


| PHYS 2305 | Thermodynamics and Statistical Mechanics |  |
| :---: | :---: | :---: |
| PHYS 3601 | Classical Dynamics |  |
| PHYS 4623 | Medical Physics |  |
| PHYS 5111 | Astrophysics and Cosmology |  |
| Supplemental Credit |  |  |
| 3 semester hours from the following course count toward the mathematics/science requirement: |  | 3 |
| CIVE 3464 | Probability and Engineering Economy for Civil Engineering |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |

GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 60 semester hours in engineering as indicated below.

## Required Engineering

CIVE $2221 \quad$ Statics and Strength of Materials 4
and CIVE 2222 and Recitation for CIVE 2221
CIVE $2260 \quad$ Civil Engineering Materials 5
$\begin{array}{lll}\text { and CIVE 2261 } & \text { and Materials and Measurements Lab } \\ \text { CIVE 2320 } & \text { Structural Analysis } 1\end{array}$
and CIVE $2321 \quad$ and Recitation for CIVE 2320
$\begin{array}{lll}\text { CIVE 2324 } & \text { Reinforced Concrete Design } & 4\end{array}$
CIVE $2334 \quad$ Environmental Engineering $1 \quad 4$
CIVE 2331 Fluid Mechanics 4
CIVE 2340 Soil Mechanics 5
and CIVE 2341 and Lab for CIVE 2340
GE 3300 Energy Systems: Science, Technology, 4 and Sustainability
Civil Engineering Project Elective
Complete one of the following: 4

| CIVE 5536 | Hydrologic Engineering |
| :--- | :--- |
| CIVE 4542 | Foundation Engineering |
| CIVE 4554 | Highway Engineering |

Civil Engineering Technical Electives
Complete 11 semester hours from the following: 11

| CIVE 3425 | Steel Design |
| :---: | :---: |
| CIVE 5522 | Structural Analysis 2 |
| CIVE 4534 <br> and CIVE 4535 | Environmental Engineering 2 and Lab for CIVE 4534 |
| CIVE 5536 | Hydrologic Engineering |
| CIVE 4540 | Resource Recovery and Waste Treatment Technologies Abroad |
| CIVE 4542 | Foundation Engineering |
| CIVE 4554 | Highway Engineering |
| CIVE 4566 | Design for Sustainable Transportation: Netherlands |
| CIVE 4575 | Construction Management |
| CIVE 4777 | Climate Hazards and Resilient Cities Abroad |
| CIVE 4990 | Elective |
| CIVE 5321 | Geoenvironmental Engineering |


| CIVE 5373 | Transportation Planning and <br> Engineering |
| :--- | :--- |
| CIVE 5376 | Traffic Engineering |
| CIVE 2324 | Reinforced Concrete Design |
| CIVE 5699 | Special Topics in Civil Engineering |
| SBSY 5100 | Sustainable Design and Technologies <br> in Construction |
| SBSY 5200 | Sustainable Engineering Systems for <br> Buildings |
| SBSY 5300 | Information Systems for Integrated <br> Project Delivery |
| CIVE 5231 5221 | Construction Project Control and <br> Organization |
| CIVErnative Project Delivery Systems in |  |
| Construction |  |


| Senior Design Project |
| :--- |
| Complete one of the following: |


| CIVE 4765 | Senior Design Project-Environmental |
| :--- | :--- |
| CIVE 4767 | Senior Design Project-Structural |
| CIVE 4768 | Senior Design Project-Transportation |

Supplemental Credit
3 semester hours from the following course count toward the 3
engineering requirement:

GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2
engineering requirement:
GE 1502 Cornerstone of Engineering 2
1 semester hour from the following course counts toward the 1
engineering requirement:
CIVE $3464 \quad$ Probability and Engineering Economy
for Civil Engineering

## Professional Development

Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :---: |
| CIVE 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| CIVE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will |  |  |
| apply to the professional development area: |  |  |
| GE 1501 | Cornerstone of Engineering 1 | 2 |
| GE 1502 | Cornerstone of Engineering 2 |  |

Additional NUpath Courses

| Writing |  |  |
| :---: | :---: | :---: |
| A grade of C or higher is required: |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions | 4 |
| Major-Specific Requirements |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |

## or ECON 1116 Principles of Microeconomics

NUpath Requirements through General Electives
NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete six academic, nonremedial, nonrepetitive courses,
each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

134 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CIVE 2334 | 4 CIVE 2320 | 4 Vacation | 0 Co-op | 0 |
| MATH 2321 <br> (FQ) | 4 MATH 2341 | 4 |  |  |
| CIVE 2221 | 4 CIVE 2260 | 4 |  |  |
| CIVE 2222 | 0 GE 3300 | 4 |  |  |
| ECON 1115 or 1116 (AD, SI) | 4 CIVE 2261 <br> (AD) | 1 |  |  |
|  | CIVE 2000 | 1 |  |  |
|  | CIVE 2321 | 0 |  |  |
|  | 16 | 18 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | ---: | :---: | ---: |
| Co-op | 0 CIVE | 4 CIVE 2324 | 4 Co-op | 0 |


| CIVE 2331 | 4 |  |  |
| :---: | :---: | :---: | :---: |
| Science | 4 |  |  |
| Elective |  | 8 | 0 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ENGW 3302 (WD) | 4 General Elective | 4 Co-op | 0 |
|  | CIVE <br> Technical <br> Elective | 3 General Elective | 4 |  |
|  | CIVE Project Elective | 4 |  |  |
|  | CIVE 3464 | 4 |  |  |
|  | CIVE 3000 | 1 |  |  |
|  | 0 | 16 | 8 | 0 |


| Year 5 Hours Spring Hours <br> Fall O-op <br> Senior <br> Design <br> Project <br> General <br> Elective 5 <br> General <br> Elective <br> CIVE <br> Technical <br> Elective 4  <br> 0 4  |
| :--- | ---: | :---: |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CIVE 2334 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 2321 | 4 |  |  |  |
| (FQ) |  |  |  |  |
| CIVE 2000 | 1 |  |  |  |
| CIVE 2221 | 4 |  |  |  |
| CIVE 2222 | 0 |  |  |  |
| CIVE 2260 | 4 |  |  |  |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CIVE 2320 | 4 Co-op | 0 Co-op | 0 CIVE 2340 | 4 |
| CIVE 2321 | 0 |  | CIVE 2341 | 1 |
| CIVE 2331 | 4 |  | MATH 2341 | 4 |
| ECON 1115 | 4 |  |  |  |
| or 1116 (AD, <br> SI) |  |  |  |  |
| GE 3300 | 4 |  |  | 9 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CIVE 2324 | 4 Co-op | 0 Co-op | 0 General Elective | 4 |
| CIVE <br> Technical Elective | 3 |  | General Elective | 4 |
| Science Elective | 4 |  |  |  |
| ENGW 3302 (WD) | 4 |  |  |  |
| CIVE 3000 | 1 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| CIVE 3464 | 4 Senior <br> Design Project | 5 |
| General Elective | 4 General Elective | 4 |
| CIVE <br> technical elective | 4 General Elective | 4 |
| CIVE project elective | 4 CIVE <br> Technical Elective | 4 |
|  | 16 | 17 |

Total Hours: 134

## Civil Engineering, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the dual-degree bachelor's/ master's program through their academic advisor and the graduate school, selecting a concentration for the MS in Civil Engineering from among the five listed in the graduate catalog: construction management, environmental and water systems, geotechnical/geoenvironmental engineering, structural engineering, or transportation engineering.

Once admitted, students must complete the requirements for the BS in Civil Engineering as well as 32 graduate credits that meet the requirements for the MS in Civil Engineering program, following the selected concentration. Students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree. Consult the academic advisor for information on this program.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

Minimum 2.000 GPA required in CIVE courses
Minimum 3.000 GPA required in graduate courses

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below.

Required Mathematics/Science
Complete one of the following:

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 |  |
| :---: | :---: | :---: |
| CHEM 1211 <br> and CHEM 1212 <br> and CHEM 1213 | General Chemistry 1 <br> and Lab for CHEM 1211 <br> and Recitation for CHEM 1211 |  |
| CHEM 1214 and CHEM 1215 and CHEM 1216 | General Chemistry 2 <br> and Lab for CHEM 1214 <br> and Recitation for CHEM 1214 |  |
| 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 2341 | Differential Equations and Linear Algebra for Engineering | 4 |


| PHYS 1151 | Physics for Engineering 1 |
| :--- | :--- |
| and PHYS 1152 |  |
| and Lab for PHYS 1151 |  |
| and PHYS 1153 | and Interactive Learning Seminar for <br> PHYS 1151 |
| PHYS 1161 Physics 1 <br> and PHYS 1162 and Lab for PHYS 1161 <br> and PHYS 1163 and Recitation for PHYS 1161 |  |

## Science Elective

Complete one of the following:

| ENVR 1101 | Environmental Science |
| :--- | :--- |
| ENVR 1110 | Global Climate Change |
| ENVR 1111 | Weather and Climate |
| ENVR 1120 | Oceans and Coasts |
| ENVR 1200 | Dynamic Earth |
| ENVR 1202 | History of Earth and Life |


| ENVR 2310 | Earth Materials |  |
| :---: | :---: | :---: |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |  |
| ENVR 3302 <br> and ENVR 3303 | Introduction to Remote Sensing and Lab for ENVR 3302 |  |
| ENVR 3400 | Field Geology |  |
| ENVR 3418 | Geophysics |  |
| ENVR 4505 | Wetlands |  |
| ENVR 4515 | Sustainable Development |  |
| ENVR 5250 | Geology and Land-Use Planning |  |
| ENVR 5280 |  |  |
| ENVR 5282 |  |  |
| ENVR 5290 | Engineering Geology |  |
| BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |  |
| BIOL 1115 <br> and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 |  |
| BIOL 1117 <br> and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 |  |
| BIOL 1121 <br> and BIOL 1122 | Basic Microbiology and Lab for BIOL 1121 |  |
| BIOL 1141 | Microbes and Society |  |
| BIOL 1143 | Biology and Society |  |
| CHEM 2311 and CHEM 2312 and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 |  |
| CHEM 2321 and CHEM 2322 | Analytical Chemistry and Lab for CHEM 2321 |  |
| CHEM 3401 | Chemical Thermodynamics and Kinetics |  |
| PHYS 1111 | Astronomy |  |
| PHYS 2303 | Modern Physics |  |
| PHYS 2305 | Thermodynamics and Statistical Mechanics |  |
| PHYS 3601 | Classical Dynamics |  |
| PHYS 4623 | Medical Physics |  |
| PHYS 5111 | Astrophysics and Cosmology |  |
| Supplemental Credit |  |  |
| 3 semester hours from the following course count toward the mathematics/science requirement: |  | 3 |
| CIVE 3464 | Probability and Engineering Economy for Civil Engineering | 4 |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1501 | Cornerstone of Engineering 1 | 4 |

## Engineering

Complete 56 semester hours in engineering as indicated below.

## Required Engineering

$\left.\begin{array}{llr}\text { CIVE 2221 } & \begin{array}{l}\text { Statics and Strength of Materials } \\ \text { and CIVE 2222 }\end{array} & 4 \\ \text { and Recitation for CIVE 2221 }\end{array}\right)$

| or CIVE 3425 | Steel Design |  |
| :---: | :---: | :---: |
| CIVE 2334 | Environmental Engineering 1 | 4 |
| CIVE 2331 | Fluid Mechanics | 4 |
| CIVE 2340 and CIVE 2341 | Soil Mechanics and Lab for CIVE 2340 | 5 |
| GE 3300 | Energy Systems: Science, Technology, and Sustainability | 4 |
| Civil Engineering Project Elective |  |  |
| Complete one of the following: |  | 4 |
| CIVE 5536 | Hydrologic Engineering |  |
| CIVE 4542 | Foundation Engineering |  |
| CIVE 4554 | Highway Engineering |  |
| Civil Engineering Technical Electives |  |  |
| Complete 11 semester hours from the following: |  | 11 |
| CIVE 3425 | Steel Design |  |
| CIVE 5522 | Structural Analysis 2 |  |
| CIVE 4534 <br> and CIVE 4535 | Environmental Engineering 2 and Lab for CIVE 4534 |  |
| CIVE 4540 | Resource Recovery and Waste Treatment Technologies Abroad |  |
| CIVE 5536 | Hydrologic Engineering |  |
| CIVE 4542 | Foundation Engineering |  |
| CIVE 4554 | Highway Engineering |  |
| CIVE 4566 | Design for Sustainable Transportation: Netherlands |  |
| CIVE 4575 | Construction Management |  |
| CIVE 4777 | Climate Hazards and Resilient Cities Abroad |  |
| CIVE 4990 | Elective |  |
| CIVE 5221 | Construction Project Control and Organization |  |
| CIVE 5231 | Alternative Project Delivery Systems in Construction |  |
| CIVE 5271 | Solid and Hazardous Waste Management |  |
| CIVE 5275 | Life Cycle Assessment of Materials, Products, and Infrastructure |  |
| CIVE 5321 | Geoenvironmental Engineering |  |
| CIVE 5373 | Transportation Planning and Engineering |  |
| CIVE 5376 | Traffic Engineering |  |
| CIVE 2324 | Reinforced Concrete Design |  |
| CIVE 5699 | Special Topics in Civil Engineering |  |
| SBSY 5100 | Sustainable Design and Technologies in Construction |  |
| SBSY 5200 | Sustainable Engineering Systems for Buildings |  |
| SBSY 5300 | Information Systems for Integrated Project Delivery |  |

## Senior Design Project

Complete one of the following:

| CIVE 4765 | Senior Design Project-Environmental |
| :--- | :--- |
| CIVE 4767 | Senior Design Project-Structural |
| CIVE 4768 | Senior Design Project-Transportation |

Supplemental Credit

2 semester hours from the following course count toward the 2 engineering requirement:

$$
\text { GE } 1501 \quad \text { Cornerstone of Engineering } 1
$$

3 semester hours from the following course count toward the 3 engineering requirement:

GE 1502 Cornerstone of Engineering 2
1 semester hour from the following course counts toward the 1 engineering requirement:
CIVE $3464 \quad$ Probability and Engineering Economy 4
for Civil Engineering

## Professional Development

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| CIVE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| CIVE 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
|  | Professions |  |

Major-Specific Requirements

| ECON 1115 | Principles of Macroeconomics | 4 |
| :---: | :--- | :--- |
| or ECON 1116 | Principles of Microeconomics |  |

NUpath Requirements through General Electives
NUpath requirements Interpreting Culture (IC) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete five academic, nonremedial, nonrepetitive courses, 20 equivalent to 4 semester hours.

## Graduate Courses Taken As an Undergraduate Student

Complete eight courses that will count toward the Master of
Science in Civil Engineering in consultation with your advisor.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

151 total semester hours required

## Plan of Study

## Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 |  | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 MATH 2341 | 4 Vacation | Co-op |  |
| ECON 1115 or 1116 (AD, $\mathrm{SI})$ | 4 CIVE 2000 | 1 |  |  |
| CIVE 2221 | 4 CIVE 2260 | 4 |  |  |
| CIVE 2222 | 0 CIVE 2261 | 1 |  |  |
| CIVE 2334 | 4 CIVE 2320 | 4 |  |  |
|  | CIVE 2321 | 0 |  |  |
|  | GE 3300 | 4 |  |  |
|  | 16 | 18 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | CIVE 2331 | 4 CIVE 2324 | 4 Co-op |  |
|  | CIVE 2340 | 4 General <br> elective | 4 |  |
| CIVE 2341 <br> Undergraduat <br> civil <br> technical/ <br> project <br> elective | 4 |  |  |  |
| Science <br> elective | 4 | 8 | 0 |  |
| 0 | 17 |  |  |  |


| Year 4 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | CIVE 3000 |  | General elective | 4 Vacation |  |
|  | CIVE 3464 |  | ENGW 3302 <br> (WD) | 4 |  |
|  | Graduate civil technical elective | 4 |  |  |  |
|  | Graduate civil technical elective | 4 |  |  |  |

$\left.\begin{array}{lcccr} & \begin{array}{c}\text { Graduate } \\ \text { course }\end{array} & 4 & 8 & 0 \\ \hline \text { Year 5 } & 0 & 17 & & \\ \begin{array}{l}\text { Fall }\end{array} & \begin{array}{r}\text { Hours Spring } \\ \text { Graduate } \\ \text { course }\end{array} & 4 \text { CIVE 476x }\end{array} \quad \begin{array}{r}\text { Hours }\end{array}\right]$

Total Hours: 151

## Five Years, 2 Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 (FQ) | 4 | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 2321 | 4 Co-op | Co-op | Vacation |  |
| (FQ) |  |  |  |  |
| CIVE 2000 | 1 |  |  |  |
| CIVE 2221 | 4 |  |  |  |
| CIVE 2222 | 0 |  |  | 0 |
| CIVE 2260 | 4 |  | 0 |  |
| CIVE 2261 | 1 |  |  |  |
| CIVE 2334 | 4 | 0 | 0 |  |
|  | 18 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CIVE 2320 | 4 Co-op | Co-op | MATH 2341 | 4 |
| CIVE 2321 | 0 |  | CIVE 2340 | 4 |
| CIVE 2331 | 4 |  | CIVE 2341 | 1 |
| ECON 1115 | 4 |  |  |  |
| or 1116 (AD, <br> SI) |  |  |  |  |
| GE 3300 | 4 |  |  | 9 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CIVE 2324 | 4 Graduate | 4 Vacation | General <br> elective | 4 |


| CIVE 3000 |  | Science elective | 4 | General elective | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENGW 3302 <br> (WD) |  | Grad civil technical elective | 4 |  |  |
| Graduate civil technical elective | 4 | Graduate course | 4 |  |  |
| Undergrad civil technical elective | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 8 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| CIVE 3464 | 4 | CIVE 476x | 5 |  |  |
| Graduate course | 4 | Graduate course | 4 |  |  |
| Graduate course | 4 | Graduate course | 4 |  |  |
| General elective | 4 | General elective | 4 |  |  |
|  | 16 |  | 17 |  |  |

Total Hours: 151

## Civil Engineering, BS/ Engineering Management, MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

Minimum 2.000 GPA required in CIVE courses
Minimum 3.000 GPA required in graduate courses

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| Complete one of the following: | 4 |  |
| :---: | :--- | :--- |
| CHEM 1151 | General Chemistry for Engineers |  |
| CHEM 1211 | General Chemistry 1 |  |
| CHEM 1214 | General Chemistry 2 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |


| MATH 2321 | Calculus 3 for Science and Engineering |
| :--- | :--- |
| MATH 2341 | Differential Equations and Linear |
|  | Algebra for Engineering |

## Supplemental Credit

3 semester hours from the following course count toward the 3 mathematics/science requirement:

IE $6200 \quad$ Engineering Probability and Statistics
1 semester hour from the following course counts toward the 1
mathematics/science requirement:
GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 56 semester hours in engineering as indicated below.

## Required Engineering

| CIVE 2221 | Statics and Strength of Materials | 4 |
| :--- | :--- | ---: |
| CIVE 2260 | Civil Engineering Materials | 4 |
| CIVE 2261 | Materials and Measurements Lab | 1 |
| CIVE 2320 | Structural Analysis 1 | 4 |
| CIVE 2324 | Reinforced Concrete Design | 4 |
| or CIVE 3425 | Steel Design |  |
| CIVE 2334 | Environmental Engineering 1 | 4 |
| CIVE 2331 | Fluid Mechanics | 4 |
| CIVE 2340 | Soil Mechanics |  |
| and CIVE 2341 | and Lab for CIVE 2340 | 5 |
| GE 3300 | Energy Systems: Science, Technology, <br> and Sustainability | 4 |
|  |  |  |

Civil Engineering Project Elective

| Complete one of the following: |  |
| :---: | :--- |
| CIVE 5536 | Hydrologic Engineering |
| CIVE 4542 | Foundation Engineering |
| CIVE 4554 | Highway Engineering |

Civil Engineering Technical Electives
Complete 11 semester hours from the following: 11
CIVE $3425 \quad$ Steel Design

CIVE 5522 Structural Analysis 2
CIVE 4534 Environmental Engineering 2
and CIVE 4535 and Lab for CIVE 4534
$\begin{array}{ll}\text { CIVE 4540 } & \text { Resource Recovery and Waste } \\ & \text { Treatment Technologies Abroad } \\ \text { CIVE 5536 } & \text { Hydrologic Engineering }\end{array}$

| CIVE 4542 | Foundation Engineering |
| :--- | :--- |
| CIVE 4554 | Highway Engineering |

$\begin{array}{ll}\text { CIVE } 4566 & \text { Design for Sustainable Transportation } \\ & \text { Netherlands }\end{array}$
CIVE 4575 Construction Management
CIVE 4777 Climate Hazards and Resilient Cities
Abroad
CIVE 4990 Elective
CIVE $5221 \quad$ Construction Project Control and Organization
CIVE $5231 \quad$ Alternative Project Delivery Systems in Construction
CIVE 5271 Solid and Hazardous Waste Management
CIVE 5275 Life Cycle Assessment of Materials, Products, and Infrastructure
CIVE $5321 \quad$ Geoenvironmental Engineering

| CIVE 5373 | Transportation Planning and <br> Engineering |
| :--- | :--- |
| CIVE 5376 | Traffic Engineering |
| CIVE 2324 | Reinforced Concrete Design |
| CIVE 5699 | Special Topics in Civil Engineering |
| SBSY 5100 | Sustainable Design and Technologies <br> in Construction |
| SBSY 5200 | Sustainable Engineering Systems for <br> Buildings <br> Information Systems for Integrated <br> SBSY 5300Project Delivery |

## Senior Design Project

Complete one of the following:

| CIVE 4765 | Senior Design Project-Environmental |
| :--- | :--- |
| CIVE 4767 | Senior Design Project-Structural |
| CIVE 4768 | Senior Design Project-Transportation |

CIVE 4768 Senior Design Project-Transportation

## Supplemental Credit

3 semester hours from the following course count toward the 3 engineering requirement:

GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the 2 engineering requirement:

## GE 1502 Cornerstone of Engineering 2

1 semester hour from the following course counts toward the 1 engineering requirement:

EMGT $6225 \quad$ Economic Decision Making

## Professional Development

Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :---: |
| CIVE 2000 | Introduction to Engineering Co-op | 1 |
| CIVE 3000 | Education | 1 |

## Additional Required Courses

The remaining credit from each of the following courses will apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

A grade of C or higher is required:
ENGW 1111 First-Year Writing 4

ENGW $3302 \quad$ Advanced Writing in the Technical 4
Professions
Major-Specific Requirements
ECON 1115 Principles of Macroeconomics 4 or ECON 1116 Principles of Microeconomics

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Elective

Complete three academic, nonremedial, nonrepetitive course, equivalent to 4 semester hours.

Graduate Courses taken toward the PlusOne program
Required Graduate Courses

| EMGT 5220 | Engineering Project Management | 4 |
| :---: | :---: | :---: |
| EMGT 6225 | Economic Decision Making | 4 |
| IE 6200 | Engineering Probability and Statistics | 4 |
| OR 6205 | Deterministic Operations Research | 4 |
| Graduate Technical Electives |  |  |
| Complete 16 semester hours from the following |  | 16 |
| CSYE 6200 | Concepts of Object-Oriented Design |  |
| CSYE 6205 | Concepts of Object-Oriented Design with C++ |  |
| CSYE 6210 | Component Software Development |  |
| CSYE 6220 | Enterprise Software Design |  |
| CSYE 7230 | Software Engineering |  |
| CSYE 7270 | Building Virtual Environments |  |
| CSYE 7280 | User Experience Design and Testing |  |
| ENSY 5000 | Fundamentals of Energy System Integration |  |
| EMGT 5300 | Engineering/Organizational Psychology |  |
| EMGT 6305 | Financial Management for Engineers |  |
| EMGT 7978 | Independent Study |  |
| ENTR 6200 | Enterprise Growth and Innovation |  |
| ENTR 6212 | Business Planning for New Ventures |  |
| ENTR 6218 | Business Model Design and Innovation |  |
| ENTR 6219 | Financing Ventures from Early Stage to Exit |  |
| GE 5100 | Product Development for Engineers |  |
| IE 5400 | Healthcare Systems Modeling and Analysis |  |
| IE 5500 | Systems Engineering in Public Programs |  |
| IE 5617 | Lean Concepts and Applications |  |
| IE 5620 | Mass Customization |  |
| IE 5640 | Data Mining for Engineering Applications |  |
| IE 6300 | Manufacturing Methods and Processes |  |
| IE 7200 | Supply Chain Engineering |  |
| IE 7215 | Simulation Analysis |  |
| IE 7255 | Manufacturing Processes |  |
| IE 7270 | Intelligent Manufacturing |  |
| IE 7275 | Data Mining in Engineering |  |
| IE 7280 | Statistical Methods in Engineering |  |
| IE 7285 | Statistical Quality Control |  |
| IE 7290 | Reliability Analysis and Risk Assessment |  |
| IE 7315 | Human Factors Engineering |  |
| IE 7615 | Neural Networks in Engineering |  |
| INFO 6210 | Data Management and Database Design |  |
| INFO 6215 | Business Analysis and Information Engineering |  |


| INFO 6245 | Planning and Managing Information Systems Development |
| :---: | :---: |
| INFO 7245 | Agile Software Development |
| INFO 7260 | Business Process Engineering |
| INFO 7275 | Advanced Database Management Systems |
| INFO 7285 | Organizational Change and IT |
| INFO 7290 | Data Warehousing and Business Intelligence |
| INFO 7330 | Information Systems for HealthcareServices Delivery |
| INFO 7365 | Enterprise Architecture Planning and Management |
| INFO 7390 | Advances in Data Sciences and Architecture |
| MGSC 6206 | Management of Service and Manufacturing Operations |
| OR 7230 | Probabilistic Operation Research |
| OR 7235 | Inventory Theory |
| OR 7240 | Integer and Nonlinear Optimization |
| OR 7245 | Network Analysis and Advanced Optimization |
| OR 7250 | Multi-Criteria Decision Making |
| OR 7310 | Logistics, Warehousing, and Scheduling |
| SCHM 6212 | Executive Roundtable in Supply Chain Management |
| SCHM 6214 | Sourcing and Procurement |
| SCHM 6215 | Supply Chain Analytics |
| SCHM 6221 | Sustainability and Supply Chain Management |
| SCHM 6222 | Managing Emerging Issues in Supply Chain Management |
| SCHM 6223 | Managing Healthcare Supply Chain Operations |
| SCHM 6224 | Demand Planning and Forecasting |
| TECE 6200 | Innovation and Entrepreneurial Growth |
| TECE 6222 | Emerging and Disruptive Technologies |
| TECE 6230 | Entrepreneurial Marketing and Selling |
| TECE 6250 | Lean Design and Development |
| TECE 6300 | Managing a Technology-Based Business |
| TECE 6340 | The Technical Entrepreneur as Leader |
| TELE 5310 | Fundamentals of Communication Systems |
| TELE 5330 | Data Networking |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

150 total semester hours required

## Plan of Study

## Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 <br> (FQ) |  | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 |  | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ |  | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 2321 <br> (FQ) | 4 | MATH 2341 | 4 Vacation | Co-op |  |
| CIVE 2221 | 4 | CIVE 2000 | 1 |  |  |
| CIVE 2222 | 0 | CIVE 2260 | 4 |  |  |
| CIVE 2334 | 4 | CIVE 2261 | 1 |  |  |
| GE 3300 | 4 | CIVE 2320 | 4 |  |  |
|  |  | CIVE 2321 | 0 |  |  |
|  |  | ECON 1115 or 1116 (AD, $\mathrm{SI})$ | 4 |  |  |
|  | 16 |  | 18 | 0 | 0 |


| Year 3 <br> Fall <br> Co-op | Hours Spring <br> CIVE 2331 | Hours Summer 1 <br> CIVE 2340 CIVE 2324 | Hours Summer 2 <br> 4 General <br> Elective | Hours |
| :--- | :---: | :---: | :---: | :---: |
|  | CIVE 2341 | 4 |  |  |
| Undergraduat <br> Civ Tech/ <br> Project <br> Elective <br> Science <br> Elective | 4 |  |  |  |
| 0 | 17 | 8 | 0 |  |



Year 5

| Fall H | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| EMGT 5220 | 4 | EMGT 6225 | 4 |
| CIVE 7220 or 6205 |  | Elective <br> Graduate Course | 4 |
| Undergraduate <br> Civ Tech <br> Elective |  | Undergraduate <br> Civ Tech <br> Elective | 4 |
| Elective <br> Graduate Course | 4 | CIVE 476x | 5 |
| 16 17 |  |  |  |

Total Hours: 150

## Five Years, 2 Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | $\begin{aligned} & 4 \text { PHYS } 1151 \\ & \text { (ND) } \end{aligned}$ | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 2321 | 4 Co-op | Co-op | Vacation |  |
| (FQ) |  |  |  |  |
| CIVE 2000 | 1 |  |  |  |
| CIVE 2221 | 4 |  |  |  |
| CIVE 2222 | 0 |  |  | 0 |
| CIVE 2260 | 4 |  | 0 | 0 |
| CIVE 2261 | 1 |  |  |  |
| CIVE 2334 | 4 | 0 | 0 |  |
|  | 18 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CIVE 2320 | 4 Co-op | Co-op | MATH 2341 | 4 |
| CIVE 2321 | 0 |  | CIVE 2340 | 4 |
| CIVE 2331 | 4 |  | CIVE 2341 | 1 |
| ECON 1115 <br> or 1116 (AD, <br> SI) | 4 |  |  |  |
| GE 3300 | 4 |  |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| CIVE 2324 | 4 IE 6200 | 4 Vacation | General | 4 |
|  |  |  | Elective |  |



Total Hours: 150

## Civil Engineering, BS/ Sustainable Building Systems, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the dual degree bachelor's/master's program through their academic advisor and the graduate school.

Once admitted, students must complete the requirements for the BS in Civil Engineering as well as 32 graduate credits that meet the requirements for the MS Sustainable Building Systems program. Students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree. Consult the academic advisor for information on this program.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Major GPA Requirement
Minimum 2.000 GPA required in CIVE courses
Minimum 3.000 GPA required in graduate courses

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| Complete one of the following: | 4 |  |
| :--- | :--- | :--- |
| CHEM 1151 | General Chemistry for Engineers |  |
| CHEM 1211 | General Chemistry 1 |  |
| CHEM 1214 | General Chemistry 2 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear <br> Complete one of the following: | 4 |

PHYS 1151 Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

| PHYS 1161 | Physics 1 |
| :--- | :--- |
| and PHYS 1162 | and Lab for PHYS 1161 |
| and PHYS 1163 | and Recitation for PHYS 1161 |

## Science Elective

Complete one of the following:

| ENVR 1101 | Environmental Science |
| :---: | :---: |
| ENVR 1110 | Global Climate Change |
| ENVR 1111 | Weather and Climate |
| ENVR 1120 | Oceans and Coasts |
| ENVR 1200 | Dynamic Earth |
| ENVR 1202 | History of Earth and Life |
| ENVR 2310 | Earth Materials |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |
| ENVR 3302 and ENVR 3303 | Introduction to Remote Sensing and Lab for ENVR 3302 |
| ENVR 3400 | Field Geology |
| ENVR 3418 | Geophysics |
| ENVR 4505 | Wetlands |
| ENVR 4515 | Sustainable Development |
| ENVR 5250 | Geology and Land-Use Planning |
| ENVR 5280 |  |
| ENVR 5282 |  |
| ENVR 5290 | Engineering Geology |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |
| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 |
| BIOL 1117 <br> and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 |
| BIOL 1121 and BIOL 1122 | Basic Microbiology and Lab for BIOL 1121 |
| BIOL 1141 | Microbes and Society |


| BIOL 1143 | Biology and Society |  |
| :---: | :---: | :---: |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 |  |
| CHEM 2321 and CHEM 2322 | Analytical Chemistry and Lab for CHEM 2321 |  |
| CHEM 3401 | Chemical Thermodynamics and Kinetics |  |
| PHYS 1111 | Astronomy |  |
| PHYS 2303 | Modern Physics |  |
| PHYS 2305 | Thermodynamics and Statistical Mechanics |  |
| PHYS 3601 | Classical Dynamics |  |
| PHYS 4623 | Medical Physics |  |
| PHYS 5111 | Astrophysics and Cosmology |  |
| Supplemental Credit |  |  |
| 3 semester hours from the following course count toward the mathematics/science requirement: |  | 3 |
| CIVE 3464 | Probability and Engineering Economy for Civil Engineering | 4 |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  |  |
| GE 1501 | Cornerstone of Engineering 1 | 4 |

## Engineering

Complete 56 semester hours in engineering as indicated below.

## Required Engineering

| CIVE 2221 | Statics and Strength of Materials | 4 |
| :---: | :---: | :---: |
| CIVE 2260 | Civil Engineering Materials | 4 |
| CIVE 2261 | Materials and Measurements Lab | 1 |
| CIVE 2320 | Structural Analysis 1 | 4 |
| $\begin{aligned} & \text { CIVE } 2324 \\ & \text { or CIVE } 3425 \end{aligned}$ | Reinforced Concrete Design Steel Design | 4 |
| CIVE 2334 | Environmental Engineering 1 | 4 |
| CIVE 2331 | Fluid Mechanics | 4 |
| CIVE 2340 and CIVE 2341 | Soil Mechanics and Lab for CIVE 2340 | 5 |
| GE 3300 | Energy Systems: Science, Technology, and Sustainability | 4 |
| Civil Engineering Project Elective |  |  |
| Complete one of th | following: | 4 |
| CIVE 4542 | Foundation Engineering |  |
| CIVE 4554 | Highway Engineering |  |
| CIVE 5536 | Hydrologic Engineering |  |
| Civil Engineering Technical Electives |  |  |
| Complete 11 semester hours from the following: |  | 11 |
| CIVE 2324 | Reinforced Concrete Design |  |
| CIVE 3425 | Steel Design |  |
| CIVE 4534 and CIVE 4535 | Environmental Engineering 2 and Lab for CIVE 4534 |  |
| CIVE 4540 | Resource Recovery and Waste Treatment Technologies Abroad |  |
| CIVE 4542 | Foundation Engineering |  |
| CIVE 4554 | Highway Engineering |  |


| CIVE 4566 | Design for Sustainable Transportation: Netherlands |
| :---: | :---: |
| CIVE 4575 | Construction Management |
| CIVE 4777 | Climate Hazards and Resilient Cities Abroad |
| CIVE 4990 | Elective |
| CIVE 5221 | Construction Project Control and Organization |
| CIVE 5231 | Alternative Project Delivery Systems in Construction |
| CIVE 5271 | Solid and Hazardous Waste Management |
| CIVE 5275 | Life Cycle Assessment of Materials, Products, and Infrastructure |
| CIVE 5321 | Geoenvironmental Engineering |
| CIVE 5373 | Transportation Planning and Engineering |
| CIVE 5376 | Traffic Engineering |
| CIVE 5522 | Structural Analysis 2 |
| CIVE 5536 | Hydrologic Engineering |
| CIVE 5699 | Special Topics in Civil Engineering |
| SBSY 5100 | Sustainable Design and Technologies in Construction |
| SBSY 5200 | Sustainable Engineering Systems for Buildings |
| SBSY 5300 | Information Systems for Integrated Project Delivery |

## Senior Design Project

Complete one of the following: 5

| CIVE 4765 | Senior Design Project-Environmental |
| :--- | :--- |
| CIVE 4767 | Senior Design Project-Structural |
| CIVE 4768 | Senior Design Project—Transportation |

## Supplemental Credit

3 semester hours from the following course count toward the 3 engineering requirement:

## GE 1501 Cornerstone of Engineering 1

2 semester hours from the following course count toward the 2
engineering requirement:
GE 1502 Cornerstone of Engineering 2
1 semester hour from the following course counts toward the 1 engineering requirement:

```
CIVE 3464 Probability and Engineering Economy for Civil Engineering
```


## Professional Development

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| CIVE 2000 | Introduction to Engineering Co-op | 1 |
| CIVE 3000 | Education | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Writing

| A grade of C or higher is required: |  |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions | 4 |
| Major-Specific Requirements |  |  |
| ECON 1115 | Principles of Macroeconomics <br> or ECON 1116 | Principles of Microeconomics |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Elective

Complete five academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours.

## Graduate Courses taken toward the PlusOne program

## Required Graduate Courses

| ARCH 5210 and ARCH 5211 | Environmental Systems and Recitation for ARCH 5210 | 4 |
| :---: | :---: | :---: |
| SBSY 5100 | Sustainable Design and Technologies in Construction | 4 |
| SBSY 5200 | Sustainable Engineering Systems for Buildings | 4 |
| Graduate Technical Electives |  |  |
| Complete 12 se | er hours from the following | 12 |
| ACCT 6200 | Financial Reporting and Managerial Decision Making 1 | 3 |
| ACCT 6201 | Financial Reporting and Managerial Decision Making 2 | 1.5 |
| CIVE 5270 | Environmental Protection and Management | 4 |
| CIVE 7350 | Behavior of Concrete Structures | 4 |
| CIVE 7351 | Behavior of Steel Structures | 4 |
| FINA 6200 | Value Creation through Financial Decision Making | 3 |
| FINA 6216 | Valuation and Value Creation | 3 |
| FINA 6217 | Real Estate Finance and Investment | 3 |
| ME 5645 | Environmental Issues in Manufacturing and Product Use | 4 |
| Graduate Restricted Electives |  |  |
| Complete 8 sem | hours from the following: | 8 |
| ARCH 5220 | Integrated Building Systems | 4 |
| CIVE 5275 | Life Cycle Assessment of Materials, Products, and Infrastructure | 4 |
| CIVE 7220 | Construction Management | 4 |
| CIVE 5221 | Construction Project Control and Organization | 2 |
| CIVE 7230 | Legal Aspects of Civil Engineering | 4 |
| CIVE 5231 | Alternative Project Delivery Systems in Construction | 2 |
| EMGT 6305 | Financial Management for Engineers | 4 |

SBSY 5300

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirements

151 total semester hours required

## Program of Study

Five Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2


Year 3


| CIVE 3464 | 4 ENGW 3302 <br> (WD) | 4 |  |
| :--- | :--- | :--- | :--- |
| Graduate <br> Elective | 4 |  |  |
| Graduate <br> Elective | 4 |  | 0 |
| General <br> Elective | 4 | 8 |  |
| 0 | 17 |  |  |

## Year 5



| 16 | 17 |
| :---: | :---: |

Total Hours: 151

## Five Years, 2 Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) | 4 MATH 1342 (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 2321 | 4 Co-op | Co-op | Vacation |  |
| (FQ) |  |  |  |  |
| CIVE 2000 | 1 |  |  |  |
| CIVE 2221 | 4 |  |  | 0 |
| CIVE 2222 | 0 |  |  |  |
| CIVE 2260 | 4 | 1 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CIVE 2320 | 4 Co-op | Co-op | MATH 2341 | 4 |
| CIVE 2321 | 0 |  | CIVE 2340 | 4 |
| CIVE 2331 | 4 |  | CIVE 2341 | 1 |
| ECON 1115 | 4 |  |  |  |
| or 1116(AD, |  |  |  |  |
| SI) |  |  |  |  |



Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { ARCH } 5210 \\ & \text { (ND, AD) } \end{aligned}$ | 4 | CIVE 476x | 5 |
| CIVE 3464 |  | Graduate Elective | 4 |
| Graduate Elective | 4 | General Elective | 4 |
| Graduate Elective |  | General Elective | 4 |
| 16 |  |  | 17 |

Total Hours: 151

## Electrical and Computer Engineering

Website (http://www.ece.neu.edu)

## Sheila S. Hemami, PhD

Professor and Chair

## Charles DiMarzio, PhD

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The 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). A combined major is available in electrical and computer engineering for students who complete the requirements of both majors. In addition, minors in electrical engineering, computer engineering, and biomedical engineering are available to qualified students throughout the university.

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 program educational objectives of the Bachelor of Science programs are that graduates should:

1. Obtain successful careers in electrical and computer engineering and related disciplines through substantial technical contributions, continued employment, professional recognition, advancement in responsibilities, a professional network, and personal satisfaction.
2. Pursue advanced study such as graduate study in engineering or related disciplines, if desired.

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 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, very large-scale integration (VLSI) design, and digital signal processing. Students have access to state-of-the-art computing facilities, including numerous Linux and Windows-based workstations. Many courses are taught in one of the four computer-based teaching classrooms. Two introductory electrical and computer engineering courses meet in integrated lab-classrooms where students and professors, assisted by undergraduate and graduate teaching assistants, work together on both theoretical and practical aspects of a wide range of signal processing and computing systems.

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, healthcare, 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.

## 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 computer-guided 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.

The BSCompE degree requires a sequence of core courses, technical electives, general electives, and electives in the arts and humanities and social sciences.

## Combined Major in Electrical Engineering and Physics

This intercollege combined 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 major combines a major in physics from the Department of Physics in the College of Science 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, a combined 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.

Students interested in this program should contact the Department of Electrical and Computer Engineering or the Department of Physics as early as possible, preferably prior to registering for freshman courses.

## Combined Major in Computer Engineering and Computer Science

This intercollege combined 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 major combines a major in physics from the Department of Physics in the College of Science with the Bachelor of Science in Computer Engineering degree from the Department of Electrical and Computer Engineering.

Because of the large body of shared knowledge between electrical engineering and physics, a combined 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. This combined major adds an in-depth and richer knowledge of programming languages and software, operating systems, and algorithms to the skills learned in the computer engineering major. The program is a particularly
appropriate course of study for students who wish to pursue a career in computer and networking hardware/software, operating systems, and programming languages, providing graduates with extensive knowledge in a broad spectrum of computing technologies.

Students interested in this program should contact the Department of Electrical and Computer Engineering or the Department of Physics as early as possible, preferably prior to registering for freshman courses.

## Combined Major in Computer Engineering and Physics

This intercollege combined 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 major combines a major in physics from the Department of Physics in the College of Science with the Bachelor of Science in Computer Engineering degree from the Department of Electrical and Computer Engineering.

Because of the large body of shared knowledge between electrical engineering and physics, a combined 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. This combined major adds an in-depth knowledge of physics, including physical fundamentals, energy and waves, materials and the applications of electronic devices and systems as well as physical computational challenges to the computer engineering base of information. Students pursuing the combined computer engineering/physics program will be prepared for careers in computational science, physics-based simulation, as well as more traditional career paths for computer engineers and physics majors.

Students interested in this program should contact the Department of Electrical and Computer Engineering or the Department of Physics as early as possible, preferably prior to registering for freshman courses.

## Programs

Bachelor of Science in Electrical Engineering (BSEE)

- Electrical Engineering (p. 386)
- Electrical Engineering and Physics (p. 389)


## Bachelor of Science in Computer Engineering (BSCompE)

- Computer Engineering (p. 378)
- Computer Engineering and Physics (p. 384)
- Computer Engineering and Computer Science (p. 381)


## Combined Major (BSEE or BSCompE)

- Electrical and Computer Engineering (p. 391)


## Dual Degree

- Electrical Engineering, BS/Electrical and Computer Engineering, MS (p. 397)
- Electrical Engineering, BS/Engineering Management, MS (p. 399)
- Computer Engineering, BS/Electrical and Computer Engineering,MS (p. 395)
- Computer Engineering, BS/Engineering Management, MS (p. 397)
- Applied Physics and Engineering, BS/MS (p. 394)


## Minors

- Electrical Engineering (p. 401)
- Computer Engineering (p. 401)
- Computational Data Analytics (p. 400)
- Biomedical Engineering (p. 399)


## Computer Engineering, BSCompE

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 computer-guided 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.

The BSCompE degree requires a sequence of core courses, technical electives, general electives, and electives in the arts and humanities and social sciences.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |

PHYS 1155
and PHYS 1156
and PHYS 1157

Physics for Engineering 2
and Lab for PHYS 1155
and Interactive Learning Seminar for PHYS 1155

## Supplemental Credit

1 semester hour from the following course counts toward the mathematics/science requirement:
GE $1502 \quad$ Cornerstone of Engineering 2

## Engineering

Complete 56 semester hours in engineering as indicated below.

## Required Courses

| EECE 2150 | Circuits and Signals: Biomedical <br> and EECE 2151 | Applications <br> and Lab for EECE 2150 |
| :--- | :--- | ---: |
| EECE 2160 | Embedded Design Enabling Robotics <br> and EECE 2161 <br> and Lab for EECE 2160 | 4 |
| Computer Engineering Fundamentals |  |  | | EECE 2322 | Fundamentals of Digital Design and <br> and EECE 2323 |
| :--- | :--- |
| Computer Organization <br> and Lab for EECE 2322 | 5 |
| EECE 2540 | Fundamentals of Networks |
| EECE 2560 | Fundamentals of Engineering <br> Algorithms |

## Electrical Engineering Fundamentals

If more than one electrical engineering fundamentals course
is taken, it can count as a technical elective.

| Complete one of the following: | $4-5$ |  |
| :--- | :--- | ---: |
| EECE 2412 <br> and EECE 2413 | Fundamentals of Electronics <br> and Lab for EECE 2412 |  |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 2530 | Fundamentals of Electromagnetics |  |
| and EECE 2531 | and Lab for EECE 2530 |  |
| Capstone Courses | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| EECE 4790 | Electrical and Computer Engineering <br> Capstone 2 | 4 |
| EECE 4792 |  |  |

## EECE Technical Electives

Up to two courses may be in CS.
Complete four of the following:

| EECE 2750 | Enabling Engineering |
| :--- | :--- |
| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| EECE 4993 | Independent Study |
| GE 4608 | Nanotechnology in Engineering |
| ENGR 5670 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage |

EECE 2412 to EECE 2530
EECE 3324 to EECE 4698
EECE 5576 to EECE 5698

| CS 3200 | Database Design |
| :--- | :--- |
| CS 3500 | Object-Oriented Design |

CS 3540 to CS 3800
CS 4100 to CS 4650
CS 4740 to CS 4850

CS 5010 to CS 5610
CS 5650 to CS 5850
IS 4200 to IS 4700

## Supplemental Credit

3 semester hours from the following course count toward the 3
engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the
engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

## Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| EECE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| EECE 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Writing
A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use general electives to do so.

## Required General Electives

Complete seven academic, nonremedial, nonrepetitive

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

131 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| MATH 2341 | 4 | EECE 2000 | 1 | Vacation | 0 Co-op | 0 |
| PHYS 1155 <br> (ND) | 3 | EECE 2150 | 4 |  |  |  |
| PHYS 1156 <br> (AD) | 1 | $\begin{aligned} & \text { EECE } 2151 \\ & \text { (AD) } \end{aligned}$ | 1 |  |  |  |
| PHYS 1157 | 1 | $\begin{aligned} & \text { CS } 1800 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |  |
| EECE 2160 | 3 | CS 1801 | 0 |  |  |  |
| EECE 2161 <br> (WI) | 1 | General elective | 4 |  |  |  |
| General elective | 4 | CE <br> fundamen | 4 |  |  |  |
| 17 |  |  | 18 |  | 0 | 0 |


| Year 3 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op |  | CE fundamentals | 5 | ENGW 3302 <br> (WD) | 4 | Co-op | 0 |
|  |  | CE <br> fundamentals | 4 | General elective | 4 |  |  |
|  |  | EE <br> fundamentals | 4 |  |  |  |  |
|  |  | General elective | 4 |  |  |  |  |
|  | 0 |  | 17 |  | 8 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 EECE 3000 | 1 EECE 4790 <br> (EI, WI, CE) | 4 Co-op | 0 |
|  | MATH 3081 <br> (AD) | 4 EECE <br> technical <br> elective | 4 |  |
| EECE <br> technical <br> elective | 4 |  |  |  |
| EECE <br> technical <br> elective | 4 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 EECE 4792 <br> (EI, WI, CE) | 4 |
|  | EECE <br> technical <br> elective | 4 |
|  | General <br> elective | 4 |
|  | 0 | 12 |
| Total Hours: 131 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 <br> (FQ) | 4 MATH 1342 <br> (FQ) | 4 Vacation |  |  |$\quad$| 0 Vacation |
| :---: |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 <br> Co-op | Hours Summer 2 <br> Vacation | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 2341 | 4 Co-op |  |  |  |
| EECE 2000 | 1 |  |  |  |
| EECE 2160 | 3 |  |  |  |
| EECE 2161 <br> (WI) | 1 |  |  |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 | 1 | 0 | 0 |
| PHYS 1157 | 1 | 0 | 0 |  |
| General <br> elective | 4 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 <br> (FQ) | 4 Co-op | Co-op | ENGW 3302 <br> (WD) | 4 |
| CS 1801 | 0 |  | General <br> elective | 4 |
| EECE 2150 | 4 |  |  |  |
| EECE 2151 <br> (AD) | 1 |  |  |  |
| CE <br> fundamentals | 4 |  |  | 8 |
| General <br> elective | 4 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| EECE 3000 | 1 Co-op | Co-op | EECE 4790 <br> (EI, WI, CE) | 4 |
| CE <br> fundamentals | 4 |  | EECE <br> technical <br> elective | 4 |
| EE <br> fundamentals | 4 |  |  |  |
| CE <br> fundamentals | 5 |  |  |  |
| General elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| EECE 4792 <br> (EI, WI, CE) | 4 EECE <br> technical <br> elective | 4 |
| MATH 3081 <br> (AD) | 4 EECE <br> technical <br> elective | 4 |
| EECE <br> technical <br> elective | General <br> elective | 4 |
| General <br> elective | 4 | 12 |

Total Hours: 131

## Computer Engineering and Computer Science, BSCompE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA in EECE courses

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 | General Chemistry for Engineers | 4 |
| and CHEM 1153 | and Recitation for CHEM 1151 |  |


| CS 1800 <br> and CS 1801 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering |  |$\quad 4$

## Engineering

Complete 48 semester hours in engineering as indicated below.

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| EECE 2150 <br> and EECE 2151 | Circuits and Signals: Biomedical <br> Applications <br> and Lab for EECE 2150 | 5 |
| EECE 2160 | Embedded Design Enabling Robotics <br> and EECE 2161 <br> and Lab for EECE 2160 | 4 |
| Computer Engineering Fundamentals |  |  |$\quad$| EECE 2322 | Fundamentals of Digital Design and <br> Computer Organization <br> and EECE 2323 |
| :--- | :--- |
| EECE 2540 for EECE 2322 | 5 |
| EECE 2560 | Fundamentals of Networks |
| Electrical Engineering Fundamentals of Engineering <br> Algorithms | 4 |
| Complete one of the following: |  |


| EECE 2412 | Fundamentals of Electronics |
| :--- | :--- |
| and EECE 2413 | and Lab for EECE 2412 |
| EECE 2520 | Fundamentals of Linear Systems |
| EECE 2530 | Fundamentals of Electromagnetics |
| and EECE 2531 | and Lab for EECE 2530 |

## Capstone Courses

| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| :--- | :--- | :--- |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

## EECE Technical Elective

Complete two of the following:

| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| :--- | :--- |
| EECE 2530 | Fundamentals of Electromagnetics |
| and EECE 2531 | and Lab for EECE 2530 |
| EECE 2750 | Enabling Engineering |
| EECE 4993 | Independent Study |
| GE 4608 | Nanotechnology in Engineering |

EECE 2412 to EECE 2530
EECE 5576 to EECE 5698
EECE 3324 to EECE 4698

| ENGR 5670 | Sustainable Energy: Materials, |
| :--- | :--- |
| Conversion, Storage, and Usage |  |

One CS course from the following approved list may be taken the toward the EECE technical elective requirement:

| CS 3200 | Database Design |
| :--- | :--- |
| CS 3540 | Game Programming |
| CS 3740 | Systems Security |
| CS 3800 | Theory of Computation |
| CS 4850 | Building Game Engines |
| CS 4100 to CS 4410 |  |
| CS 4510 to CS 4650 |  |
| CS 4740 to CS 4760 |  |
| CS 5010 to CS 5610 |  |
| CS 5650 to CS 5850 |  |
| IS 4200 to IS 4700 |  |

## Supplemental Credit

3 semester hours from the following course count toward the engineering requirement:
GE 1501 Cornerstone of Engineering 1

2 semester hours from the following course count toward the 2 engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Computer Science Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Computer Science Introductory Courses |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Upper-Level Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3650 | Computer Systems | 4 |
| CS 3700 | Networks and Distributed Systems | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

## Professional Development <br> Code Title

## Hours

Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| EECE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| EECE 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
The remaining credit from each of the following courses will
apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

Additional NUpath Courses
Code Title
Writing
A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete two academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Integrative Courses

The following courses are taken in the major and count toward the integrative requirement:

| Code | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| CS 1800 | Discrete Structures | 4 |
| PHYS 1151 | Physics for Engineering 1 | 4 |
| and PHYS 1152 | and Lab for PHYS 1151 |  |
| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

138 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |


| ENGW 1111 <br> (WF) |  | General elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 17 |  | 17 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 2341 | 4 | EECE 2160 | 3 Vacation | 0 Co-op | 0 |
| PHYS 1155 <br> (ND) | 3 | EECE 2161 <br> (WI) | 1 |  |  |
| PHYS 1156 <br> (AD) | 1 | $\begin{aligned} & \text { CS } 2510 \text { (ND, } \\ & \text { AD) } \end{aligned}$ | 4 |  |  |
| PHYS 1157 | 1 | CS 2511 | 1 |  |  |
| $\begin{aligned} & \text { CS } 2500 \text { (ND, } \\ & \text { FQ) } \end{aligned}$ | 4 | CS 2800 | 4 |  |  |
| CS 2501 | 1 | CS 2801 | 1 |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { (FQ) } \end{aligned}$ | 4 | EECE 2000 | 1 |  |  |
| CS 1801 | 0 | General elective | 4 |  |  |
|  | 18 |  | 19 | 0 | 0 |



## Year 4



| CE <br> fundamental <br> course | 4 | CS 4800 | 4 |
| :--- | :---: | :---: | :---: |
| CE <br> fundamental <br> course | 5 |  |  |
| CS $3500(N D$, <br> AD) | 4 |  |  |
| CS 3650 | 4 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| EECE 4792 <br> (EI, WI, CE) | 4 EECE <br> technical elective | 4 |
| CE <br> fundamental course | 4 General elective | 4 |
| EE <br> fundamental course | 4 EECE <br> technical elective | 4 |
| CS 3700 | 4 CS 4500 (WI) | 4 |
|  | 16 | 16 |

Total Hours: 138

## Computer Engineering and Physics, BSCompE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 63 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| CS 1800 1153 | Discrete Structures <br> and CS 1801 | and Recitation for CS 1800 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |


| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| :---: | :---: | :---: |
| MATH 3081 | Probability and Statistics | 4 |
| Complete one of the following: |  | 5 |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| Complete one of the following: |  | 5 |
| PHYS 1165 and PHYS 1166 | Physics 2 and Lab for PHYS 1165 |  |
| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |
| Advanced Physics Elective |  |  |
| Complete one of the following: |  | 4 |
| PHYS 4606 | Mathematical and Computational Methods for Physics |  |
| PHYS 4621 | Biological Physics 1 |  |
| PHYS 4623 | Medical Physics |  |
| PHYS 4651 | Medical Physics Seminar 1 |  |
| PHYS 4652 | Medical Physics Seminar 2 |  |
| PHYS 5111 | Astrophysics and Cosmology |  |
| PHYS 5113 | Introduction to Particle and Nuclear Physics |  |
| PHYS 5114 | Physics of Advanced Materials |  |
| PHYS 5116 | Complex Networks and Applications |  |
| PHYS 5260 | Introduction to Nanoscience and Nanotechnology |  |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Engineering |  |  |
| Complete 48 semester hours in engineering as indicated below. |  |  |
| Code | Title |  |
| Required Courses |  |  |
| EECE 2150 <br> and EECE 2151 | Circuits and Signals: Biomedical Applications and Lab for EECE 2150 | 5 |
| EECE 2160 <br> and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Computer Engineering Fundamentals |  |  |
| EECE 2322 <br> and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 | 5 |



## Year 2



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS 3602 <br> (ND) | $\begin{aligned} & 4 \text { PHYS } 3600 \\ & \text { (ND, AD< WI) } \end{aligned}$ | 4 Co-op | 0 |
|  | EE fundamentals | 4 General elective | 4 |  |
|  | CE fundamentals | 5 |  |  |
|  | ENGW 3302 <br> (WD) | 4 |  |  |
|  | 0 | 17 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 PHYS 5115 <br> (ND, FQ) | $\begin{array}{r} 4 \text { EECE } 4790 \\ \text { (EI, WI, CE) } \end{array}$ | 4 Co-op | 0 |
|  | EECE 3000 | 1 EECE technical elective | 4 |  |
|  | CE fundamentals | 4 |  |  |
|  | MATH 3081 <br> (AD) | 4 |  |  |
|  | General elective | 4 |  |  |
|  | 0 | 17 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 EECE 4792 <br> (EI, WI, CE)  | 4 |
|  | EECE <br> technical <br> elective | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
| 0 | 12 |  |

Total Hours: 131

## Electrical Engineering, BSEE

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, healthcare, 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.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

Minimum 2.000 GPA required in EECE courses

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below:
$\left.\begin{array}{lll}\text { CHEM } 1151 \\ \text { and CHEM 1153 }\end{array} \quad \begin{array}{ll}\text { General Chemistry for Engineers } \\ \text { and Recitation for CHEM 1151 }\end{array}\right] 4$

## Supplemental Credit

2 semester hours from the following course count toward the mathematics/science requirement:
EECE $3468 \quad$ Noise and Stochastic Processes
1 semester hour from the following course counts toward the
mathematics/science requirement:
GE $1502 \quad$ Cornerstone of Engineering 2

## Engineering

Complete 58 semester hours in engineering as indicated below.

## Required Courses

| EECE 2150 | Circuits and Signals: Biomedical <br> and EECE 2151 | Applications <br> and Lab for EECE 2150 |
| :--- | :--- | ---: |
| EECE 2160 Embedded Design Enabling Robotics <br> and EECE 2161 <br> and Lab for EECE 2160 <br> Electrical Engineering Fundamentals  | 4 |  |
| EECE 2412 Fundamentals of Electronics <br> and EECE 2413 and Lab for EECE 2412 |  |  |
| EECE 2520 Fundamentals of Linear Systems | 5 |  |
| EECE 2530 <br> and EFCE 2531 | Fundamentals of Electromagnetics <br> and Lab for EECE 2530 | 4 |


| Computer Engineering Fundamental |  |  |
| :---: | :---: | :---: |
| If more than one computer engineering fundamentals course is taken, it can count as a technical elective. |  |  |
| Complete one of the following: |  | 4-5 |
| EECE 2322 <br> and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 |  |
| EECE 2540 | Fundamentals of Networks |  |
| EECE 2560 | Fundamentals of Engineering Algorithms |  |
| Capstone Courses |  |  |
| EECE 4790 | Electrical and Computer Engineering Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering Capstone 2 | 4 |

Electrical Engineering Technical Electives
Complete four of the following: 16

| EECE 2322 <br> and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 |  |
| :---: | :---: | :---: |
| EECE 3154 | Hyperspectral Imaging in an International Context |  |
| EECE 4993 | Independent Study |  |
| ENGR 5670 | Sustainable Energy: Materials, Conversion, Storage, and Usage |  |
| GE 4608 | Nanotechnology in Engineering |  |
| EECE 2540 to EEC | E 2750 |  |
| EECE 3324 to EEC | E 3410 |  |
| EECE 4512 to EEC | E 4698 |  |
| EECE 5576 to EEC | E 5698 |  |
| Supplemental Credit |  |  |
| 2 semester hours from the following course count toward the |  | 2 |

engineering requirement:

EECE 3468 Noise and Stochastic Processes

23 semester hours from the following course count toward the 3 engineering requirement:

| GE 1501 | Cornerstone of Engineering 1 |  |
| :--- | :--- | ---: |
| 2 semester hours from the following course count toward the | 2 |  |
| engineering requirement: |  |  |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Total Hours |  | $58-59$ |

## Professional Development

Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :---: |
| EECE 2000 | Introduction to Engineering Co-op | 1 |
| EECE 3000 | Education | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Requirements

Writing
A grade of $C$ or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the |  |
|  | Disciplines |  |

## NUpath Requirements through Open Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Elective

Complete seven academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

132 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| (FQ) | (FQ) |  |  |  |
| CHEM 1151 | 4 PHYS 1151 <br>  <br> $\quad 3$ (ND) |  |  |  |


| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General <br> elective | 4 | 0 | 0 |

## Year 2

| Fall | Hours Spring |  |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1155 <br> (ND) | Hours Summer 1 | Hours Summer 2 |
| (FQ) |  |  |$\quad$| Hours |
| ---: |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 EE <br> fundamental course | 5 ENGW 3302 <br> (WD) | 4 Co-op | 0 |
|  | EE <br> fundamental course | 5 General elective | 4 |  |
|  | CE <br> fundamental course | 4 |  |  |
|  | General elective | 4 |  |  |
|  | 0 | 18 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 EECE 3468 | 4 EECE <br> technical elective | 4 Co-op | 0 |
|  | General elective | $\begin{array}{r} 4 \text { EECE } 4790 \\ \text { (EI, WI, CE) } \end{array}$ | 4 |  |
|  | General elective | 4 |  |  |
|  | EECE 3000 | 1 |  |  |
|  | EECE <br> technical <br> elective | 4 |  |  |
|  | 0 | 17 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 EECE 4792 | 4 |
|  | (EI, WI, CE) |  |


|  | EECE <br> technical <br> elective | 4 |
| :--- | :--- | :--- |
| EECE <br> technical <br> elective | 4 |  |
| 0 | 12 |  |
| Total Hours: 132 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) |  | MATH 1342 (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 (WF) | 4 | General elective | 4 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1155 <br> (ND) | 3 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| MATH 2341 | 4 |  |  |  |
| EECE 2150 | 4 |  |  |  |
| EECE 2151 <br> (AD) | 1 |  | 0 | 0 |
| EECE 2000 | 1 | 4 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 <br> (FQ) | 4 Co-op | 0 Co-op | 0 ENGW 3302 |  |$\quad 4$

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| EECE 3000 | 1 Co-op | 0 Co-op | 0 EECE | 4 |
|  |  |  | technical <br> elective |  |


| EE <br> fundamental course | 5 |  | EECE 4790 <br> (EI, WI, CE) | 4 |
| :---: | :---: | :---: | :---: | :---: |
| General elective | 4 |  |  |  |
| EE <br> fundamental course | 5 |  |  |  |
| CE <br> fundamental course | 4 |  |  |  |
|  | 19 | 0 | 0 | 8 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| EECE 3468 | 4 EECE <br> technical elective | 4 |  |  |
| EECE <br> technical elective | 4 General elective | 4 |  |  |
| EECE 4792 <br> (EI, WI, CE) | 4 EECE <br> technical elective | 4 |  |  |
| General elective | 4 |  |  |  |
|  | 16 | 12 |  |  |

Total Hours: 132

## Electrical Engineering and Physics, BSEE

This intercollege combined 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 major combines a major in physics from the Department of Physics in the College of Science 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, a combined 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 Department of Electrical and Computer Engineering or the Department of Physics as early as possible, preferably prior to registering for freshman courses.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 57 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| Complete one of the following: |  | 5 |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| Complete one of the following: |  | 5 |
| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for PHYS 1155 |  |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |
| Advanced Physics Elective |  |  |
| Complete one of the following: |  | 4 |
| MATH 4606 | Mathematical and Computational Methods for Physics |  |
| PHYS 3600 to PHYS 7999 |  |  |
| Supplemental Credit |  |  |
| 2 semester hours from the following course count toward the mathematics/science requirement: |  | 2 |
| EECE 3468 | Noise and Stochastic Processes |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Engineering Requirement

Complete 51 semester hours in engineering as indicated below.



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS 3602 <br> (ND) | $\begin{aligned} & 4 \text { PHYS } 3600 \\ & \text { (ND, AD, WI) } \end{aligned}$ | 4 Co-op | 0 |
|  | CE fundamentals | 4 General elective | 4 |  |
|  | EE <br> fundamentals | 5 |  |  |
|  | ENGW 3302 <br> (WD) | 4 |  |  |
|  | 0 | 17 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 EECE 3468 | $\begin{array}{r} 4 \text { EECE } 4790 \\ \text { (EI, WI, CE) } \end{array}$ | 4 Co-op | 0 |
|  | PHYS 5115 <br> (ND, FQ) | 4 EECE <br> technical elective | 4 |  |
|  | EECE <br> technical elective | 4 |  |  |
|  | EE fundamentals | 5 |  |  |
|  | EECE 3000 | 1 |  |  |
|  | 0 | 18 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 EECE 4792 <br> (EI, WI, CE) | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
|  | General <br> elective | 4 |
| 0 | 12 |  |

[^7]
## Electrical and Computer Engineering, BSEE or BSCompE

Students may choose to major in both electrical and computer engineering by following the combined-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. Additional NUpath requirements must be fulfilled using general electives.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 37 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 | 5 |

## Supplemental Credit

2 semester hours from the following course count toward the 2 mathematics/science requirement:
EECE $3468 \quad$ Noise and Stochastic Processes
1 semester hour from the following course counts toward the mathematics/science requirement:
GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 68 semester hours in engineering as indicated below.

## Required Courses

| EECE 2150 and EECE 2151 | Circuits and Signals: Biomedical Applications and Lab for EECE 2150 | 5 |
| :---: | :---: | :---: |
| EECE 2160 and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Electrical Engineering Fundamentals |  |  |
| EECE 2412 and EECE 2413 | Fundamentals of Electronics and Lab for EECE 2412 | 5 |
| EECE 2520 | Fundamentals of Linear Systems | 4 |
| EECE 2530 <br> and EECE 2531 | Fundamentals of Electromagnetics and Lab for EECE 2530 | 5 |
| Computer Engineering Fundamentals |  |  |
| EECE 2322 and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 | 5 |
| EECE 2540 | Fundamentals of Networks | 4 |
| EECE 2560 | Fundamentals of Engineering Algorithms | 4 |
| Capstone Courses |  |  |
| EECE 4790 | Electrical and Computer Engineering Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering Capstone 2 | 4 |
| EECE Technical Electives |  |  |
| Up to two courses may be in CS. |  |  |
| Complete four of the following: |  | 16 |
| EECE 2750 | Enabling Engineering |  |
| EECE 3154 | Hyperspectral Imaging in an International Context |  |
| EECE 4993 | Independent Study |  |
| EECE 3324 to EECE 3410 |  |  |
| EECE 4512 to EECE 4698 |  |  |
| EECE 5576 to EECE 5698 |  |  |
| ENGR 5670 | Sustainable Energy: Materials, Conversion, Storage, and Usage |  |
| GE 4608 | Nanotechnology in Engineering |  |
| CS 3200 | Database Design |  |
| CS 3500 | Object-Oriented Design |  |
| CS 3540 to CS 3800 |  |  |
| CS 4100 to CS 4650 |  |  |
| CS 4740 to CS 4850 |  |  |
| CS 5010 to CS 5610 |  |  |
| CS 5650 to CS 5850 |  |  |
| IS 4200 to IS 4700 |  |  |
| Supplemental Credit |  |  |
| 2 semester hours from the following course count toward the engineering requirement: |  |  |
| EECE 3468 Noise and Stochastic Processes |  |  |
| 3 semester hours from the following course count toward the engineering requirement: |  | 3 |
| GE 1501 Cornerstone of Engineering 1 |  |  |
| 2 semester hours from the following course count toward the engineering requirement: |  | 2 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Professional Development

Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| EECE 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| EECE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will |  |  |
| apply to the professional development area: |  |  |
| GE 1501 | Cornerstone of Engineering 1 | 2 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Additional NUpath Courses Writing

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete four academic, nonremedial, nonrepetitive courses,
each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

133 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHYS 1155 <br> (ND) |  | MATH 2321 <br> (FQ) | 4 Vacation | 0 Co-op | 0 |
| PHYS 1156 <br> (AD) |  | $\begin{aligned} & \text { CS } 1800 \\ & \text { (FQ) } \end{aligned}$ | 4 |  |  |
| PHYS 1157 | 1 | CS 1801 | 0 |  |  |
| EECE 2150 <br> or 2160 |  | EECE 2160 <br> or 2150 | 3 |  |  |
| EECE 2151 <br> or 2161 (AD <br> or WI) |  | EECE 2161 <br> or 2151 (WI <br> or AD) | 1 |  |  |
| MATH 2341 |  | EE or CE fundamentals | 4 |  |  |
| General elective | 4 | EECE 2000 | 1 |  |  |
|  | 18 |  | 17 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 EE or CE fundamentals | $\begin{aligned} & 4 \text { ENGW } 3302 \\ & \text { (WD) } \end{aligned}$ | 4 Co-op | 0 |
|  | EE or CE fundamentals | 4 General elective | 4 |  |
|  | EE or CE fundamentals | 5 |  |  |
|  | EE or CE fundamentals | 5 |  |  |
|  | 0 | 18 | 8 | 0 |


| Year 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | EECE 3000 |  | EECE <br> technical elective | 4 | Co-op | 0 |
|  |  | EECE 3468 |  | EECE 4790 <br> (EI, WI, CE) | 4 |  |  |
|  |  | EE or CE fundamentals | 5 |  |  |  |  |
|  |  | EECE <br> technical elective | 4 |  |  |  |  |
|  |  | EECE <br> technical elective | 4 |  |  |  |  |
|  | 0 |  | 18 |  | 8 |  | 0 |


| Year 5 <br> Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 EECE 4792 <br> (EI, WI, CE) | 4 |
| EECE <br> technical <br> elective | 4 |  |
| General <br> elective | 4 |  |
| 0 | 12 |  |

[^8]Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) |  | $\begin{aligned} & \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS 1155 <br> (ND) | 3 Co-op | Co-op | Vacation |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| EECE 2000 | 1 |  |  |  |
| EECE 2150 <br> or 2160 | 4 |  |  |  |
| EECE 2151 <br> or 2161 (AD <br> or WI) | 1 |  |  |  |
| MATH 2341 | 4 |  |  |  |
| General elective | 4 |  |  |  |
|  | 19 | 0 | 0 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { (FQ) } \end{aligned}$ | 4 Co-op | Co-op | General elective | 4 |
| CS 1801 | 0 |  | ENGW 3302 <br> (WD) | 4 |


| MATH 2321 <br> (FQ) | 4 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| EECE 2160 <br> or 2150 | 3 |  |  |  |
| EECE 2161 <br> or 2151 | 1 |  |  |  |
| EE or CE <br> fundamentals | 4 | 0 | 8 | 8 |
|  | 16 | 0 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | ---: | ---: | Hours


| EE or CE <br> fundamentals | 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 19 | 0 | 0 | 8 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| EECE 3468 | 4 EECE <br> technical elective | 4 |  |  |
| EECE 4792 <br> (EI, WI, CE) | 4 EECE <br> technical elective | 4 |  |  |
| EE or CE fundamentals | 5 General elective | 4 |  |  |
| EECE $4$ <br> technical elective |  |  |  |  |
|  | 17 | 12 |  |  |

Total Hours: 133

## Applied Physics, BS/Engineering, MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38)

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34)

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Breadth Courses

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| General Engineering | Engineering Problem Solving and <br> GE 1111 | Computation |
| Chemistry General Chemistry 1 <br> CHEM 1211  <br> and CHEM 1212  | and Lab for CHEM 1211 | 5 |

## Major Requirements <br> Code Title

Hours

| Complete one of the following: |  | 5 |
| :---: | :---: | :---: |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| Physics 2 |  |  |
| Complete one of the following: |  | 5 |
| PHYS 1165 and PHYS 1166 | Physics 2 and Lab for PHYS 1165 |  |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 |  |
| Intermediate Physics |  |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 2371 and PHYS 2372 | Electronics and Lab for PHYS 2371 | 4 |
| Advanced Physics |  |  |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |

## Experiential Learning

Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/ or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information.
PHYS 4996 Experiential Education Directed Study 4

Senior Capstone
PHYS $5318 \quad$ Principles of Experimental Physics 4

Engineering Undergraduate Requirements

| EECE 2150 | Circuits and Signals: Biomedical | 4 |
| :--- | :--- | :---: |
| EECE 2412 | Applications | 4 |
| EECE 2520 | Fundamentals of Electronics | 4 |

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Graduate Courses |  |  |
| Complete the following courses as an undergraduate student. |  |  |
| These courses fulfill requirements listed above: |  |  |
| PHYS 5115 | Quantum Mechanics | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |

## Applied Physics and Engineering Major Credit Requirement

Complete 70 semester hours in the major.

## Program Requirements

135 total semester hours required for the bachelor's degree Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS 1000 |  | PHYS 1165 <br> (ND) | 4 Vacation | 0 Vacation | 0 |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ |  | PHYS 1166 <br> (AD) | 1 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 | PHYS 1167 | 0 |  |  |
| CHEM 1211 | 4 | MATH 1342 <br> (FQ) | 4 |  |  |
| CHEM 1212 | 1 | GE 1111 | 4 |  |  |
| CHEM 1213 |  | Open elective | 4 |  |  |
| PHYS 1161 <br> (ND) | 4 |  |  |  |  |
| PHYS 1162 <br> (AD) | 1 |  |  |  |  |
| PHYS 1163 | 0 |  |  |  |  |
|  | 19 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS 2303 <br> (ND) | 4 EECE 2150 | 4 Vacation | 0 Co-op | 0 |
| PHYS 2371 <br> (ND) | 3 EECE 2151 <br> (AD) | 1 |  |  |
| PHYS 2372 <br> (EI) | 1 PHYS 2305 <br> (ND) | 4 |  |  |
| MATH 2321 <br> (FQ) | 4 MATH 2341 | 4 |  |  |
| Open elective | 4 EESC 2000 | 1 |  |  |
|  | Open elective | 4 |  |  |
|  | 16 | 18 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS 3602 <br> (ND) | 4 PHYS 3603 <br> (ND) | 4 Co-op | 0 |
|  | EECE 2412 | 4 PHYS 3600 (ND, AD, WI) | 4 |  |
|  | EECE 2413 <br> (WI) | 1 |  |  |
|  | EECE 2520 | 4 |  |  |
|  | ENGW 3315 <br> (WD) | 4 |  |  |
|  | 0 | 17 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 5115 | 4 Open | 4 Vacation | 0 |
|  | $(N D, F Q)$ | elective |  |  |


|  |  | PHYS 5318 <br> (ND, AD, CE) |  | Open elective | 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | EECE <br> graduate elective | 4 |  |  |  |
|  |  | EECE <br> graduate elective | 4 |  |  |  |
|  | 0 |  | 16 |  | 8 | 0 |
| Year 5 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |
| EECE graduate elective |  | EECE <br> graduate elective | 4 |  |  |  |
| EECE <br> graduate elective |  | EECE <br> graduate elective | 4 |  |  |  |
| EECE <br> graduate elective |  | EECE <br> graduate elective | 4 |  |  |  |
| Open elective |  | Open elective | 4 |  |  |  |
|  | 16 |  | 16 |  |  |  |

Total Hours: 151

## Computer Engineering, BS/Electrical and Computer Engineering, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

### 2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 | General Chemistry for Engineers |  |
| :--- | :--- | ---: |
| and CHEM 1153 | and Recitation for CHEM 1151 | 4 |
| CS 1800 | Discrete Structures | 4 |
| and CS 1801 | and Recitation for CS 1800 | 4 |


| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for <br> PHYS 1151 | 4 |
| PHYS 1155  <br> and PHYS 1156  <br> and PHYS 1157 Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 <br> Supplemental Credit  | 5 |  |

## Supplemental Credit

1 semester hour from the following course counts toward the mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 56 semester hours in engineering as indicated below.

## Required Courses

| EECE 2150 and EECE 2151 | Circuits and Signals: Biomedical Applications and Lab for EECE 2150 | 5 |
| :---: | :---: | :---: |
| EECE 2160 and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Computer Engineering Fundamentals |  |  |
| EECE 2322 and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 | 5 |
| EECE 2540 | Fundamentals of Networks | 4 |
| EECE 2560 | Fundamentals of Engineering Algorithms | 4 |

## Electrical Engineering Fundamentals

If more than one electrical engineering fundamentals course is taken, it can count as a technical elective.
Complete one of the following: 4-5
EECE 2412 Fundamentals of Electronics
and EECE 2413 and Lab for EECE 2412
EECE $2520 \quad$ Fundamentals of Linear Systems
EECE 2530 Fundamentals of Electromagnetics
and EECE 2531
and Lab for EECE 2530

| Capstone Courses |  | 4 |
| :--- | :--- | :---: |
| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

## EECE Technical Electives

Up to two courses may be in CS.
Complete four of the following:

| EECE 2750 | Enabling Engineering |
| :--- | :--- |
| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| EECE 4993 | Independent Study |
| GE 4608 | Nanotechnology in Engineering |
| ENGR 5670 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage |

EECE 2412 to EECE 2530
EECE 3324 to EECE 4698
EECE 5576 to EECE 5698
CS $3200 \quad$ Database Design
CS $3500 \quad$ Object-Oriented Design
CS 3540 to CS 3800
CS 4100 to CS 4650
CS 4740 to CS 4850
CS 5010 to CS 5610
CS 5650 to CS 5850
IS 4200 to IS 4700
Supplemental Credit
3 semester hours from the following course count toward the
engineering requirement: $\quad$ Cornerstone of Engineering 1
GE $1501 \quad 3$
2 semester hours from the following course count toward the
engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

## Required Professional Development

GE $1000 \quad$ Introduction to the Study of Engineering 1

EECE 2000 Introduction to Engineering Co-op 1
Education
EECE $3000 \quad$ Professional Issues in Engineering 1
Additional Required Courses
The remaining credit from each of the following courses will 2
apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

## Writing

A grade of $C$ or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the |  |
|  | Disciplines |  |

NUpath Requirements through General Electives
NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete five academic, nonremedial, nonrepetitive courses,
each equivalent to 4 semester hours.

## Graduate Courses taken as an undergraduate student

Complete two courses that will count toward the Master of

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

131 total semester hours required
Minimum 3.000 GPA required in all graduate coursework
Plan of Study
Five Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 2341 | 4 Co-op | Co-op | General Elective | 4 |
| PHYS 1155 <br> (ND) | 3 |  | General Elective | 4 |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| EECE 2150 | 4 |  |  |  |
| EECE 2151 <br> (AD) | 1 |  |  |  |
| EECE 2000 | 1 |  |  |  |
| EECE 2160 | 3 |  |  |  |
| (WI) |  |  |  |  |
|  | 19 | 0 | 0 | 8 |

## Year 3

$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 1800 } & 4 \text { Co-op } & \text { Co-op } & \begin{array}{l}\text { MATH 3081 } \\ \text { (FQ) }\end{array} & \\ \text { (AD) }\end{array}\right) 4$

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| EECE 3000 | 1 EECE <br> Technical Elective | $\begin{array}{r} 4 \text { EECE } 4790 \\ \text { (EI, WI, CE) } \end{array}$ | 4 Vacation |  |
| CE <br> Fundamental | 4 EECE <br> Graduate Course | 4 EECE <br> Technical Elective | 4 |  |
| EECE <br> Technical Elective | 4 EECE <br> Graduate Course | 4 |  |  |
| EECE <br> Graduate Course | $\begin{aligned} & 4 \text { ENGW } 3302 \\ & \text { or } 3315 \text { (WD) } \end{aligned}$ | 4 |  |  |
| EECE <br> Graduate <br> Course | 4 |  |  |  |
|  | 17 | 16 | 8 | 0 |

Year 5
$\left.\begin{array}{lcc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \text { EECE } & 4 \text { EECE 4792 }\end{array} \quad 4 \begin{array}{l}\text { (EI, WI, CE) }\end{array}\right)$

## Computer Engineering, BS/Engineering Management, MS

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a limited number of semester hours of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Electrical Engineering, BS/Electrical and Computer Engineering, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 33 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

Complete one of the following:

| CHEM 1151 | General Chemistry for Engineers |  |
| :---: | :--- | :---: |
| CS 1800 | Discrete Structures |  |
| and CS 1801 | and Recitation for CS 1800 |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
| PHYS 1151 | Algebra for Engineering |  |
| PHYS 1152 | Physics for Engineering 1 | 3 |
| PHYS 1153 | Lab for PHYS 1151 | 1 |
| PHYS 1155 | 1151 | 1 |
| PHYS 1156 | Physics for Engineering 2 | 3 |
| PHYS 1157 | Lab for PHYS 1155 | 1 |
|  | Interactive Learning Seminar for PHYS | 1 |

## Supplemental Credit

2 semester hours from the following course count toward the mathematics/science requirement:

EECE $3468 \quad$ Noise and Stochastic Processes
1 semester hour from the following course counts toward the mathematics/science requirement:

$$
\text { GE } 1502 \quad \text { Cornerstone of Engineering } 2
$$

## Engineering

Complete 58 semester hours in engineering as indicated below.

## Required Courses

| EECE 2150 | Circuits and Signals: Biomedical |  |
| :--- | :--- | :---: |
| and EECE 2151 | Applications <br> and Lab for EECE 2150 | 5 |
| EECE 2160 <br> and EECE 2161 | Embedded Design Enabling Robotics <br> and Lab for EECE 2160 | 4 |
| Electrical Engineering Fundamentals |  |  |
| EECE 2412 | Fundamentals of Electronics |  |
| and EECE 2413 | and Lab for EECE 2412 | 5 |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 2530 | Fundamentals of Electromagnetics |  |
| and EECE 2531 | and Lab for EECE 2530 | 4 |

## Computer Engineering Fundamentals

Complete one of the following
and EECE 2323 Computer Organization
and Lab for EECE 2322

| EECE 2540 | Fundamentals of Networks |
| :--- | :--- |
| EECE 2560 | Fundamentals of Engineering |
|  | Algorithms |

## Capstone Courses

| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| :--- | :--- | :--- |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

EECE Technical Electives
Up to two courses may be in CS.
Complete four of the following:

| EECE 2750 | Enabling Engineering <br> EECE 3154Hyperspectral Imaging in an <br> International Context |
| :--- | :--- |
| EECE 4993Independent Study |  |
| EECE 3324 to EECE 3410 |  |
| EECE 4512 to EECE 4698 |  |
| EECE 5576 to EECE 5698 |  |

ENGR 5670 Sustainable Energy: Materials, Conversion, Storage, and Usage
GE $4608 \quad$ Nanotechnology in Engineering

CS 3200 Database Design
CS 3500 Object-Oriented Design
CS 3540 to CS 3800
CS 4100 to CS 4650
CS 4740 to CS 4850
CS 5010 to CS 5610
CS 5650 to CS 5850
IS 4200 to IS 4700

## Supplemental Credit

2 semester hours from the following course count toward the 2
engineering requirement:
EECE $3468 \quad$ Noise and Stochastic Processes
3 semester hours from the following course count toward the 3 engineering requirement:
GE 1501 Cornerstone of Engineering 1

2 semester hours from the following course count toward the 2 engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| EECE 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| EECE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will |  |  |
| apply to the professional development area: |  |  |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Additional NUpath Courses

## Writing

A grade of $C$ or higher is required:
ENGW 1111 First-Year Writing

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| ---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives

## Required General Electives

Complete 5 academic, nonremedial, nonrepetitve courses,
each equivalent to 4 semester hours.

## Graduate Courses taken as an undergraduate student

Complete two courses that will count toward the Master of Science in consultation with your advisor.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

132 total semester hours required to complete the bachelors degree.
Minimum 3.000 GPA required in all graduate coursework
Plan of Study
Five Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ |  | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 |  | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| MATH 2341 | 4 Co-op | Co-op | General <br> Elective | 4 |
| PHYS 1155 <br> (ND) | 3 | General <br> Elective | 4 |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| EECE 2150 | 4 |  |  |  |
| EECE 2151 | 1 |  |  |  |
| (AD) |  |  |  |  |
| EECE 2000 | 1 |  |  |  |


| EECE 2160 | 3 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| EECE 2161 <br> (WI) | 1 |  |  |  |
|  | 19 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 Co-op | Co-op | EECE <br> Technical Elective | 4 |
| EE <br> Fundamental | 5 |  | General Elective | 4 |
| CE <br> Fundamentals | 4 |  |  |  |
| EE <br> Fundamentals | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| EECE 3000 | 1 ENGW 3302 <br> $($ WD $)$ | 4 EECE <br> Technical <br> Elective | 4 Vacation | 0 |

Year 5
$\left.\begin{array}{lrc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \text { EECE } & 4 \text { EECE 4792 } & 4 \\ \begin{array}{l}\text { Technical }\end{array} & \text { (EI, WI, CE) }\end{array}\right]$

Total Hours: 156

## Electrical Engineering, BS/Engineering Management, MS

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a limited number of semester hours of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Biomedical Engineering, Minor

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 website (http://www.ece.neu.edu), or by calling 617.373.2165.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: 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 GPA of 2.000 is required.

## Required Biology

BIOL 1115 General Biology 1 for Engineers
and BIOL 1116
BIOL 1117
and BIOL 1118 and Lab for BIOL 1115
Integrated Anatomy and Physiology 1 and Lab for BIOL 1117

## Required Engineering

The course you select may also count toward your major.
Complete one of the following:

| EECE 4512 | Biomedical Electronics |
| :--- | :--- |
| EECE 5664 | Biomedical Signal Processing |
| EECE 5648 | Biomedical Optics |
| EECE 5698 | Special Topics in Electrical and <br> Computer Engineering |
| EECE 4993 | Independent Study (must have a <br> biomedical-engineering focus) |

## Required Capstone-Design Courses

Complete the following two courses on a biologically oriented project:

| EECE 4790 | Electrical and Computer Engineering <br> Capstone 1 | 4 |
| :--- | :--- | ---: |
| EECE 4792 | Electrical and Computer Engineering <br> Capstone 2 | 4 |

## Elective Courses

One course must be outside your home department. Neither course can be used toward your major.

Complete two of the following:

## Biology

| BIOL 1113 | General Biology 2 |
| :--- | :--- |
| and BIOL 1114 | and Lab for BIOL 1113 |
| BIOL 1119 | Integrated Anatomy and Physiology 2 |
| and BIOL 1120 | and Lab for BIOL 1119 |
| BIOL 2299 | Inquiries in Biological Sciences |

and BIOL 1114 and Lab for BIOL 1113
BIOL 1119 Integrated Anatomy and Physiology 2
and BIOL 1120
BIOL 2299

| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |
| :---: | :---: |
| BIOL 3405 | Neurobiology |
| BIOL 5581 | Biological Imaging |
| Chemical Engineering |  |
| CHME 5630 | Biochemical Engineering |
| CHME 5699 | Special Topics in Chemical Engineering |
| Civil/Industrial Engineering |  |
| CIVE 7251 | Environmental Biological Processes |
| Electrical/Computer Engineering |  |
| EECE 4512 | Biomedical Electronics |
| EECE 5664 | Biomedical Signal Processing |
| EECE 5648 | Biomedical Optics |
| EECE 5698 | Special Topics in Electrical and Computer Engineering |
| EECE 4993 | Independent Study |
| Mechanical/Industrial Engineering |  |
| ME 5665 | Musculoskeletal Biomechanics |
| IE 4522 | Human Machine Systems |
| Physics |  |
| PHYS 4621 | Biological Physics 1 |
| PHYS 4623 | Medical Physics |
| PHYS 4651 | Medical Physics Seminar 1 |
| PHYS 4652 | Medical Physics Seminar 2 |
| Psychology |  |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |

## GPA Requirement

2.000 GPA required in the minor

## Computational Data Analytics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Students need to complete the program requirements with at least three courses that are not part of their major required course work.

## 4 Probability and Statistics

| Complete one of the following: |  |
| :---: | :--- |
| CIVE 3464 | Probability and Engineering Economy <br> for Civil Engineering |
| EECE 3468 | Noise and Stochastic Processes |
| GE 2361 | Mathematical Methods for Engineers |
| MATH 2280 | Statistics and Software |
| MATH 3081 | Probability and Statistics |

## Required Courses

| EECE 2300 | Computational Methods for Data <br> Analytics (not required for EECE <br> majors) | 4 |
| :--- | :--- | ---: |
| EECE 5644 | Introduction to Machine Learning and <br> Pattern Recognition | 4 |
| EECE 5642 | Data Visualization | 4 |

## Elective

Complete one of the following:

| EECE 2560 | Fundamentals of Engineering <br> Algorithms |
| :--- | :--- |
| EECE 2520 | Fundamentals of Linear Systems |
| EECE 4542 | Advanced Engineering Algorithms |
| EECE 4626 | Image Processing and Pattern <br> Recognition |
| EECE 4694 | Numerical Methods and Computer <br> Applications |
| EECE 5639 | Computer Vision |
| CS 3200 | Database Design |
| CS 4240 | Large-Scale Parallel Data Processing |
| CS 4800 | Algorithms and Data |
| CS 5200 | Database Management Systems |
| CS 5750 | Social Computing |
| IE 4515 | Operations Research |
| IE 5640 | Data Mining for Engineering <br> Applications |
| IS 4200 | Information Retrieval |
| IS 4700 | Social Information Systems |
| MATH 4525 | Applied Analysis |

## GPA Requirement

2.000 GPA required in the minor

## Computer Engineering, Minor

The minor in computer engineering is open to all students in the university. The minor is designed for the student who would like a coherent background in the theory and laboratory practice of computer engineering. For additional information contact Ellen M. Zierk, ezierk@ece.neu.edu.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: 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 GPA of 2.000 is required. This minor is not open to students in the Department of Electrical and Computer Engineering.

Complete a total of four courses for the minor.

## Required Core Course

EECE 2160 Embedded Design Enabling Robotics
and EECE 2161 and Lab for EECE 2160
Required Fundamental Courses

| Complete two of the following: | $8-9$ |
| :--- | :--- |
| EECE 2322 <br> and EECE 2323 | Fundamentals of Digital Design and <br> Computer Organization <br> and Lab for EECE 2322 |
| EECE 2540 | Fundamentals of Networks |
| EECE 2560 | Fundamentals of Engineering <br> Algorithms |

## Computer Engineering Technical Elective

4 Fundamentals not taken to satisfy the above requirement may be used as a technical elective.

Complete one of the following:

| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| :--- | :--- |
| EECE 4993 | Independent Study |
| ENGR 5670 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage |
| GE 4608 $\quad$ Nanotechnology in Engineering |  |
| EECE 2322 to EECE2750 |  |
| EECE3324 to EECE 4698 |  |
| EECE 5576 to EECE 5698 |  |

## GPA Requirement

2.000 GPA required in the minor

## Electrical Engineering, Minor

A minor in electrical engineering is particularly designed for majors in math, science, computer science, or other engineering departments who would like a coherent background in the theory and laboratory practice of electrical engineering. For additional information, contact Ellen M. Zierk, ezierk@ece.neu.edu.

## Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: 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 GPA of 2.000 is required. This minor is not open to students in the Department of Electrical and Computer Engineering because of overlap with the majors.

Complete a total of four courses for the minor.

## Required Core Course

Complete one of the following:
EECE $2150 \quad$ Circuits and Signals: Biomedical
and EECE 2151 Applications and Lab for EECE 2150
EECE 2210 Electrical Engineering
and EECE 2211 and Lab for EECE 2210

## Fundamental Core Courses

Complete two of the following: 9-10
EECE 2412 Fundamentals of Electronics
and EECE 2413 and Lab for EECE 2412
EECE 2520 Fundamentals of Linear Systems
EECE 2530 Fundamentals of Electromagnetics
and EECE 2531 and Lab for EECE 2530

## Electrical Engineering Technical Electives

Fundamentals not taken to satisfy the above requirement may be used as a technical elective.
Complete one of the following:

| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| :--- | :--- |
| EECE 4993 | Independent Study |
| ENGR 5670 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage |
| GE 4608 | Nanotechnology in Engineering |

EECE 2322 to EECE 2750
EECE 3324 to EECE 4698
EECE 5576 to EECE 5698

## GPA Requirement

2.000 GPA required in the minor

## Mechanical and Industrial Engineering

Website (http://www.mie.neu.edu)

## Hanchen Huang, PhD

Professor and Chair

## Andrew Gouldstone, PhD

Associate Professor, Associate Chair, and Director of Mechanical Engineering

## Emanuel S. Melachrinoudis, PhD

Associate Professor, Associate Chair, and Director of Industrial Engineering

## Nader Jalili, PhD

Professor and Associate Chair of Graduate Studies and Research
334 Snell Engineering Center
617.373.2740
617.373.2921 (fax)

The Department of Mechanical and Industrial Engineering offers two accredited programs leading to a Bachelor of Science in Industrial Engineering and a Bachelor of Science in Mechanical Engineering. Fiveyear Bachelor of Science/Master of Science dual-degree programs in the above two disciplines are also available. In addition, the department offers the following minors:

- Minor in industrial engineering
- Minor in mechanical engineering
- 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 program educational objectives for the mechanical engineering and industrial engineering programs are as follows. Graduates from our undergraduate programs will 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:

1. Graduates will contribute to the advancement of the mechanical or industrial engineering field, while satisfying the expectations of their employers and displaying leadership in the larger community.
2. Graduates will engage in activities that promote professional development and personal growth.

## 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. An 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, human-machine systems, probability, statistics, and engineering economy, while emphasizing such contemporary areas as simulation modeling, engineering 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 computer-integrated 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.

## 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, internalcombustion 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 four areas: applied mechanics, thermofluids engineering, materials science, and controls. 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 desired properties. Practical applications are in the development of composite materials, metallurgical process industries, and advanced functional materials. Controls are critical to any engineered system in which sensors and actuators of several types communicate and function.

Courses in each area form the foundation for advanced analytical and creative design courses that culminate in a two-semester 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 design, qualitycontrol systems, and performance testing of equipment.

## Programs

## Bachelor of Science in Industrial Engineering (BSIE) <br> - Industrial Engineering, BSIE (p. 403)

Bachelor of Science in Mechanical Engineering (BSME)

- Mechanical Engineering, BSME (p. 405)
- Mechanical Engineering and Physics, BSME (p. 408)


## Dual Degrees

- Industrial Engineering, BSIE/MS (p. 409)
- Industrial Engineering, BSIE/Energy Systems, MS (p. 412)
- Industrial Engineering, BSIE/Engineering Management, MS (p. 415)
- Industrial Engineering, BSIE/Operations Research, MS (p. 418)
- Mechanical Engineering, BS/MS (p. 422)
- Mechanical Engineering, BS/Energy Systems, MS (p. 425)
- Mechanical Engineering, BS/Engineering Management, MS (p. 428)


## Minors

- Biomechanical Engineering (p. 431)
- Industrial Engineering (p. 432)
- Mechanical Engineering (p. 432)


## Industrial Engineering, BSIE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |
| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 | 5 |

## Supplemental Credit

3 semester hours from the following course count toward the 3 mathematics/science requirement:

IE $3412 \quad$ Engineering Probability and Statistics
1 semester hour from the following course counts toward the 1 mathematics/science requirement:

IE $4512 \quad$ Engineering Economy
2 semester hours from the following course count toward the 2 mathematics/science requirement:

IE 4515 Operations Research
2 semester hours from the following course count toward the 2 mathematics/science requirement:

IE 4520 Stochastic Modeling
1 semester hour from the following course counts toward the 1 mathematics/science requirement:

$$
\text { GE } 1502 \quad \text { Cornerstone of Engineering } 2
$$

## Engineering

Complete 57 semester hours in engineering as indicated below.

## Required Engineering

| IE 2310 |  |  |
| :--- | :--- | :--- |
| and IE 2311 |  |  |
| IE 3425 |  |  |
| and IE 3426 | Introduction to Industrial Engineering <br> and Recitation for IE 2310 | 4 |
| IE 4510 | Engineering Database Systems <br> and Recitation for IE 3425 | 4 |
| IE 4516 | Simulation Modeling and Analysis |  |
| IE 4522 | Quality Assurance |  |
| and IE 4523 | Human Machine Systems <br> and Lab for IE 4522 | 4 |
| IE 4525 | Logistics and Supply Chain <br> Management | 4 |
| IE 4530 | Manufacturing Systems and <br> and IE 4531 | Techniques <br> and Lab for IE 4530 |
| MEIE 4701 | Capstone Design 1 <br> MEIE 4702 | Capstone Design 2 |

Engineering Electives

Complete 8 semester hours of technical electives in the following subject areas:

CHME, CIVE, EECE, EMGT, IE, ME, and MEIE.

## Supplemental Credit

1 semester hour from the following course counts toward the engineering requirement:
IE $3412 \quad$ Engineering Probability and Statistics

3 semester hours from the following course count toward the engineering requirement:
IE 4512 Engineering Economy
2 semester hours from the following course count toward the engineering requirement:
IE $4515 \quad$ Operations Research
2 semester hours from the following course count toward the
engineering requirement:
IE $4520 \quad$ Stochastic Modeling
3 semester hours from the following course count toward the
engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the
engineering requirement:

GE 1502
Cornerstone of Engineering 2

## Professional Development

Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| MEIE 2000 | Introduction to Engineering Co-op | 1 |
| MEIE 3000 | Education | 1 |

Additional Required Courses
The remaining credit from each of the following courses will apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Writing

| A grade of C or higher is required: |  |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete seven academic, nonremedial, nonrepetitive
courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside

8 the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

Program Requirement
137 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| IE 2310 (WI) | 4 IE 3412 (AD) | 4 |  |  |
| IE 2311 | 0 IE 4512 | 4 |  |  |
| IE 3425 | 4 MEIE 2000 | 1 |  |  |
| IE 3426 | 0 General Elective | 4 |  |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
|  | 17 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 IE 4516 | 4 General Elective | 4 Co-op | 0 |
|  | $\begin{aligned} & \text { ENGW } 3302 \\ & \text { (WD) } \end{aligned}$ | 4 General Elective | 4 |  |
|  | IE 4515 | 4 |  |  |
|  | IE 4510 | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 MEIE 3000 | 1 IE 4530 | 4 Co-op | 0 |
|  | IE 4520 | 4 IE 4531 | 1 |  |
|  | IE 4525 | $\begin{array}{r} 4 \text { MEIE } 4701 \\ \text { (EI, WI, CE) } \end{array}$ | 1 |  |
|  | Technical elective | 4 General Elective | 4 |  |
|  | General Elective | 4 |  |  |
|  | 0 | 17 | 10 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| Co-op | 0 MEIE 4702 <br> (EI, WI, CE) | 5 |
|  | IE 4522 | 4 |
|  | IE 4523 | 1 |
|  | Technical elective | 4 |
|  | General Elective | 4 |
|  | 0 | 18 |

Total Hours: 137

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MATH 1341 (FQ) |  | MATH 1342 (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| (FQ) |  |  |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENGW 3302 <br> (WD) | 4 Co-op | 0 Co-op | 0 IE 4530 | 4 |
| IE 3412 (AD) | 4 |  | IE 4531 | 1 |
| IE 4512 | 4 |  | General Elective | 4 |
| MATH 2341 | 4 |  |  |  |
|  | 16 | 0 | 0 | 9 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| IE 4510 | 4 Co-op | 0 Co-op | 0 General Elective | 4 |


| IE 4515 | 4 | General <br> Elective | 4 |  |
| :--- | :--- | :--- | :--- | :--- |
| IE 4516 | 4 |  |  |  |
| MEIE 3000 | 1 |  |  |  |
| General <br> Elective | 4 | 0 | 0 | 8 |
|  | 17 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Technical <br> elective | 4 MEIE 4702 <br> (EI, WI, CE) | 5 |
| IE 4525 | 4 IE 4522 | 4 |
| MEIE 4701 <br> (EI, WI, CE) | 1 IE 4523 | 1 |
| IE 4520 | 4 Technical <br> elective | 4 |
| General <br> Elective | General <br> Elective | 4 |

Total Hours: 137

## Mechanical Engineering, BSME

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below:

## Required Mathematics/Science

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | :--- |
| 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 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for | 4 |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for | 5 |

Science/Math Elective

| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | 5 |
| :---: | :---: | :---: |
| BIOL 1117 and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| CHEM 2311 and CHEM 2312 and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 | 5 |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 2310 | Discrete Mathematics | 4 |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 3601 | Classical Dynamics | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Engineering

Complete 68 semester hours in engineering as indicated below:

## Required Engineering

$\begin{array}{lll}\text { EECE 2210 } & \text { Electrical Engineering } & 5 \\ \text { and EECE 2211 } & \text { and Lab for EECE 2210 } & \end{array}$
ME 2340 Introduction to Material Science 5
and ME 2341 and Lab for ME 2340
$\left.\begin{array}{llc}\text { ME 2350 } & \text { Engineering Mechanics and Design } & 4 \\ \text { ME 2355 } & \text { Mechanics of Materials } & 5 \\ \text { and ME 2356 } & \text { and Lab for ME 2355 } & 4 \\ \text { ME 2380 } & \text { Thermodynamics } & 5 \\ \text { ME 3455 } & \text { Dynamics and Vibrations } & \\ \text { and ME 3456 } & \text { and Lab for ME 3455 } & 4 \\ \text { ME 3475 } & \text { Fluid Mechanics } & 4 \\ \text { or ME 3480 } & \text { International Applications of Fluid Mechanics }\end{array}\right]$

| and ME 4506 | Thermal Science Application <br> and Lab for ME 4505 |
| :--- | :--- |
| ME 4508 | Mechanical Engineering Computation |


|  | and Design <br> ME 4550 | 4 |
| :--- | :--- | :--- |
| ME 4555 | Mechanical Engineering Design | 4 |
| ME 4570 | System Analysis and Control | 4 |
| MEIE 4701 | Thermal Systems Analysis and Design | 4 |
| MEIE 4702 | Capstone Design 1 | 1 |
| Meapstone Design 2 | 5 |  |

Mechanical and Industrial Engineering Technical Elective
Complete one technical elective in one of the following 4
subject areas:
EMGT, ENGR, IE, ME, or MEIE.

## Supplemental Credit

3 semester hours from the following course counts toward
the engineering requirement:
GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course counts toward
the engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

Required Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :---: |
| MEIE 2000 | Introduction to Engineering Co-op | 1 |
| MEIE 3000 | Education | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Writing
A grade of $C$ or higher is required in each course:
ENGW 1111 First-Year Writing 4

ENGW 3302 Advanced Writing in the Technical 4 Professions
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete six academic, nonremedial, nonrepetitive courses, 24 each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

## 140 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $4$ | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | General Elective | 4 |  |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ME 2350 | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| General <br> Elective | 4 ME 2355 | 4 |  |  |
| PHYS 1155 <br> (ND) | 3 ME 2356 | 1 |  |  |
| PHYS 1156 <br> (AD) | 1 ME 2380 | 4 |  |  |
| PHYS 1157 | 1 MEIE 2000 | 1 |  |  |
| MATH 2321 <br> (FQ) | 4 General | 4 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ME 4508 | 4 ME 3475 | 4 Co-op | 0 |
|  | ENGW 3302 | 4 General | 4 |  |
|  | (WD) | Elective |  |  |
|  | ME 2340 | 4 |  |  |
|  | (WI) |  |  |  |
|  | ME 2341 | 1 |  | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 ME 4505 <br> (AD) | 4 ME 4550 | 4 Co-op | 0 |
|  | ME 4506 | 1 MEIE 4701 <br> (EI, WI, CE) | 1 |  |
|  | ME 4555 | 4 General Elective | 4 |  |
|  | ME 4570 | 4 |  |  |
|  | MEIE 3000 | 1 |  |  |
|  | Math/ <br> Science <br> Elective | 4 |  |  |
|  | 0 | 18 | 9 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 MEIE 4702 <br> (EI, WI, CE) | 5 |
|  | EECE 2210 | 4 |
| EECE 2211 | 1 |  |
| ME or IE <br> technical <br> elective | 4 |  |
| General <br> Elective | 4 |  |
| 0 | 18 |  |

Total Hours: 140

Five Years, Three Co-ops in Spring/Summer 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| ME 2350 | 4 |  |  |  |
| MEIE 2000 | 1 |  |  |  |
| General Elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2341 | 4 Co-op | 0 Co-op | $\begin{aligned} & 0 \text { ENGW } 3302 \\ & \text { (WD) } \end{aligned}$ | 4 |
| ME 2340 <br> (WI) | 4 |  | ME 3475 | 4 |
| ME 2341 | 1 |  |  |  |
| ME 2355 | 4 |  |  |  |
| ME 2356 | 1 |  |  |  |
| ME 2380 | 4 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ME 3455 | 4 Co-op | 0 Co-op | 0 ME 4550 | 4 |
| ME 3456 | 1 |  | MEIE 4701 <br> (EI, WI, CE) | 1 |
| ME 4505 <br> (AD) | 4 | General <br> Elective | 4 |  |
| ME 4506 | 1 |  |  |  |
| ME 4508 | 4 |  |  | 9 |
| ME 4570 | 4 |  | 0 | 9 |

Year 5
Fall Hours Spring Hours
ME 4555
4 ME or IE technical elective

| MEIE 3000 | 1 Math/ <br> Science <br> Elective | 4 |
| :--- | :--- | :--- |
| EECE 2210 | 4 General <br> Elective | 4 |
| EECE 2211 | 1 General <br> Elective | 4 |
| MEIE 4702 <br> (EI, WI, CE) | 5 | 16 |
| General <br> Elective | 4 |  |

Total Hours: 140

## Mechanical Engineering and Physics, BSME

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in IE, ME, and MEIE courses

## Mathematics/Science Requirement

Complete 59 semester hours in mathematics and science as indicated below:

## Code Title

## Hours

Required Mathematics/Science
$\left.\begin{array}{lll}\text { CHEM 1151 } \\ \text { and CHEM 1153 } & \text { General Chemistry for Engineers } \\ \text { MATH 1341 Recitation for CHEM 1151 }\end{array} \quad \begin{array}{l}4 \\ \text { MATH 1342 }\end{array} \begin{array}{ll}\text { Calculus 1 for Science and Engineering } & 4 \\ \text { MATH 2321 } & \text { Calculus 2 for Science and Engineering }\end{array}\right] 4$

Advanced Physics Elective

Complete one 4-semester-hour course in the following range:

## PHYS 3600 to PHYS 5999

## Supplemental Credit

1 semester hour from the following course counts toward the 1 mathematics/science requirement:
GE 1502 Cornerstone of Engineering 2

## Engineering Requirement

Complete 59 semester hours in engineering as indicated below:


## GE 1502 Cornerstone of Engineering 2

## Professional Development Requirement

Code Title Hours

Professional Development
GE 1000 Introduction to the Study of Engineering 1

MEIE $2000 \quad$ Introduction to Engineering Co-op 1

MEIE $3000 \quad$ Professional Issues in Engineering 1
Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Code Title Hours Writing

| ENGW 1111 | First-Year Writing (a grade of C or <br> higher is required) | 4 |
| :--- | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions (a grade of C or higher is <br> required) | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete 2 academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Integrative Requirement

Principles of Experimental Physics (PHYS 5318) is part of the mathematics/science requirement above and is an integrative course.

## Course Work That Does Not Count Toward The Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

139 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { MATH 1341 } \\ \text { (FQ) }\end{array} \quad \begin{array}{c}4 \text { MATH 1342 } \\ \text { (FQ) }\end{array} \quad \begin{array}{c}4 \text { Vacation }\end{array}\right)$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 PHYS 2303 | 4 Vacation | 0 Co-op | 0 |
| (FQ) | (ND) |  |  |  |
| MATH 2341 | 4 MEIE 2000 | 1 |  |  |
| PHYS 2371 <br> (ND) | ME 2340 <br> (WI) | 4 |  |  |
| PHYS 2372 <br> (EI) | 1 ME 2341 | 1 |  |  |
| ME 2350 | 4 ME 2355 | 4 |  |  |


| ME 2356 | 1 |  |  |
| ---: | ---: | ---: | ---: |
| ME 2380 | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 3602 | 4 ME 3475 | 4 Co-op | 0 |
|  | (ND) |  |  |  |
|  | ME 3455 | 4 PHYS 3600 | 4 |  |
|  | ME 3456 | 1 |  |  |
|  | ME AD, WI) |  |  |  |
|  | ME 4508 | 4 |  |  |
|  | ENGW 3302 | 4 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS 3601 <br> (ND) | 4 ME 4550 | 4 Co-op | 0 |
|  | MEIE 3000 | 1 MEIE 4701 <br> (EI, WI, CE) | 1 |  |
|  | ME 4505 <br> (AD) | 4 General Elective | 4 |  |
|  | ME 4506 | 1 |  |  |
|  | ME 4555 | 4 |  |  |
|  | ME 4570 | 4 |  |  |
|  | 0 | 18 | 9 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0MEIE 4702 <br> (EI, WI, CE) | 5 |
|  | PHYS 5318 <br> (ND, AD, CE) | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
| General <br> Elective | 4 |  |
| 0 | 17 |  |

Total Hours: 139

## Industrial Engineering, BSIE/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

$\left.\begin{array}{lll}\text { CHEM 1151 } \\ \text { and CHEM 1153 }\end{array} \quad \begin{array}{ll}\text { General Chemistry for Engineers } \\ \text { and Recitation for CHEM 1151 }\end{array}\right) 4$

## Supplemental Credit

3 semester hours from the following course count toward the mathematics/science requirement:

$$
\text { IE } 3412 \quad \text { Engineering Probability and Statistics }
$$

1 semester hour from the following course counts toward the mathematics/science requirement:

$$
\text { IE } 4512 \quad \text { Engineering Economy }
$$

2 semester hours from the following course count toward the 2 mathematics/science requirement:

$$
\text { IE } 4515 \quad \text { Operations Research }
$$

2 semester hours from the following course count toward the mathematics/science requirement:

IE 4520 Stochastic Modeling
1 semester hour from the following course counts toward the mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 57 semester hours in engineering as indicated below.

## Required Engineering

| IE 2310 and IE 2311 | Introduction to Industrial Engineering and Recitation for IE 2310 | 4 |
| :---: | :---: | :---: |
| IE 3425 and IE 3426 | Engineering Database Systems and Recitation for IE 3425 | 4 |
| IE 4510 | Simulation Modeling and Analysis | 4 |
| IE 4516 | Quality Assurance | 4 |
| IE 4522 and IE 4523 | Human Machine Systems and Lab for IE 4522 | 5 |
| IE 4525 | Logistics and Supply Chain Management | 4 |


| IE 4530 Manufacturing Systems and <br> and IE 4531 Techniques <br> and Lab for IE 4530 | 5 |
| :---: | :---: |
| MEIE 4701 Capstone Design 1 | 1 |
| MEIE 4702 Capstone Design 2 | 5 |
| Engineering Electives |  |
| Complete 8 semester hours of technical electives in the following subject areas: | 8 |
| CHME, CIVE, EECE, EMGT, IE, ME, and MEIE. |  |
| Supplemental Credit |  |
| 1 semester hour from the following course counts toward the engineering requirement: | 1 |
| IE 3412 Engineering Probability and Statistics |  |
| 3 semester hours from the following course count toward the engineering requirement: | 3 |
| IE $4512 \quad$ Engineering Economy |  |
| 2 semester hours from the following course count toward the engineering requirement: | 2 |
| IE 4515 Operations Research |  |
| 2 semester hours from the following course count toward the engineering requirement: | 2 |
| IE 4520 Stochastic Modeling |  |
| 3 semester hours from the following course count toward the engineering requirement: | 3 |
| GE 1501 Cornerstone of Engineering 1 |  |
| 2 semester hours from the following course count toward the engineering requirement: | 2 |
| GE 1502 Cornerstone of Engineering 2 |  |

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | ---: |
| MEIE 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| MEIE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will <br> apply to the professional development area: | 2 |  |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |

Minimum 3.000 GPA required in graduate courses

## Required Courses

| IE 6200 | Engineering Probability and Statistics |
| :--- | :--- |
| OR 6205 | Deterministic Operations Research |$\quad 4$

The remaining 16 credits can be taken by one of the following three options:

1. IE 7990-Thesis (8 credits), MEIE 6850 Research Seminar ( 0 credits), and two graduate electives (total of 8 credits) from the list below.
2. IE 7945-Master's Project (4 credits), MEIE 6850 Research Seminar ( 0 credits), and three graduate electives (total of 12 credits) from the list below.
3. Four courses (total of 16 credits) from the list below.

## Graduate Electives

Note: Students may choose any of the following electives. Students may take other course work with the approval of their advisor. For courses outside the list below, a petition form must be submitted to the student's advisor and approved by the Graduate School of Engineering.

| CSYE 6200 | Concepts of Object-Oriented Design |
| :---: | :---: |
| CSYE 6205 | Concepts of Object-Oriented Design with C++ |
| CSYE 6210 | Component Software Development |
| CSYE 6220 | Enterprise Software Design |
| CSYE 7230 | Software Engineering |
| CSYE 7270 | Building Virtual Environments |
| CSYE 7280 | User Experience Design and Testing |
| EMGT 5220 | Engineering Project Management |
| EMGT 5300 | Engineering/Organizational Psychology |
| EMGT 6225 | Economic Decision Making |
| EMGT 6305 | Financial Management for Engineers |
| IE 5617 | Lean Concepts and Applications |
| IE 5620 | Mass Customization |
| IE 5630 | Biosensor and Human Behavior Measurement |
| IE 6300 | Manufacturing Methods and Processes |
| IE 7255 | Manufacturing Processes |
| IE 7270 | Intelligent Manufacturing |
| IE 7275 | Data Mining in Engineering |
| IE 7280 | Statistical Methods in Engineering |
| IE 7285 | Statistical Quality Control |
| IE 7290 | Reliability Analysis and Risk Assessment |
| IE 7315 | Human Factors Engineering |
| OR 7230 | Probabilistic Operation Research |
| OR 7235 | Inventory Theory |
| OR 7240 | Integer and Nonlinear Optimization |
| OR 7245 | Network Analysis and Advanced Optimization |
| OR 7250 | Multi-Criteria Decision Making |
| OR 7260 | Constraint Programming |
| OR 7310 | Logistics, Warehousing, and Scheduling |

## Additional NUpath Courses

Writing
A grade of $C$ or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical | 4 |

## or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete three academic, nonremedial, nonrepetitive
courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

153 total semester hours required for the BS/MS degree
Minimum GPA of 3.000 required in graduate courses

## Plan of Study <br> Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 <br> (FQ) |  | MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 |  | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) |  | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| IE 2310 (WI) | 4 IE 3412 (AD) | 4 |  |  |
| IE 2311 | 0 IE 4512 | 4 |  |  |
| IE 3425 | 4 MEIE 2000 | 1 |  |  |
| IE 3426 | 0 General elective | 4 |  |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 IE 4516 | 4 Vacation | Co-op | 0 |


| IE 4515 | 4 |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Technical <br> elective | 4 |  | 0 |  |
| IE 4510 | 4 | 0 | 0 | 16 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MEIE 3000 | 1 IE 4530 | 4 Graduate <br> course | 4 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Graduate <br> course | 4 MEIE 4702 <br> (EI, WI, CE) | 5 |
| Technical <br> elective | 4 IE 4522 | 4 |
| General <br> elective | 4 IE 4523 | 1 |
| MEIE 6850 | 0 Graduate <br> course | 4 |
| Graduate <br> course | Graduate <br> course | 4 |
|  | 16 | 18 |

Total Hours: 153

## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| (FQ) |  |  |  |  |
| IE $2310($ WI $)$ | 4 |  |  |  |
| IE 2311 | 0 |  |  |  |
| IE 3425 | 4 |  |  |  |
| IE 3426 | 0 |  |  |  |


| PHYS 1155 <br> (ND) | 3 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  | 0 | 0 |
| MEIE 2000 | 1 | 0 | 0 |  |
|  | 18 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IE 3412 (AD) | 4 Co-op | 0 Co-op | 0 IE 4530 | 4 |
| Technical <br> elective | 4 |  | IE 4531 | 1 |
| IE 4512 | 4 |  | ENGW 3302 <br> (WD) | 4 |
| MATH 2341 | 4 |  |  | 4 |
|  | 16 | 0 | 0 | 9 |


| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Graduate <br> course | 4 Graduate <br> course | 4 Graduate <br> course | 4 |
| IE 4510 | 4 Graduate <br> course | 4 |  |  |
| IE 4516 | 4 General <br> elective | 4 |  |  |
| MEIE 3000 | General <br> elective | 4 |  |  |


| Technical elective | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 17 | 16 | 4 | 4 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| IE 4520 | $\begin{array}{r} 4 \text { MEIE } 4702 \\ (E I, \text { WI, CE) } \end{array}$ | 5 |  |  |
| IE 4525 | 4 IE 4522 | 4 |  |  |
| MEIE 4701 <br> (EI, WI, CE) | 1 IE 4523 | 1 |  |  |
| MEIE 6850 | 0 Graduate course | 4 |  |  |
| Graduate course | 4 Graduate course | 4 |  |  |
| Graduate course | 4 |  |  |  |
|  | 17 | 18 |  |  |

Total Hours: 153

## Industrial Engineering, BSIE/ Energy Systems, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in IE and MEIE courses

## Mathematics/Science Requirement

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

CHEM 1151

and CHEM 1153 $\quad$| General Chemistry for Engineers |
| :--- | :--- | ---: |
| and Recitation for CHEM 1151 |$\quad 4$

## Supplemental Credit

3 semester hours from the following course count toward the mathematics/science requirement:

$$
\text { IE } 3412 \quad \text { Engineering Probability and Statistics }
$$

1 semester hour from the following course counts toward the 1
mathematics/science requirement:

$$
\text { IE } 4512 \quad \text { Engineering Economy }
$$

2 semester hours from the following course count toward the 2 mathematics/science requirement:

$$
\text { IE } 4515 \quad \text { Operations Research }
$$

2 semester hours from the following course count toward the 2 mathematics/science requirement:

$$
\text { IE } 4520 \quad \text { Stochastic Modeling }
$$

1 semester hour from the following course counts toward the mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 57 semester hours in engineering as indicated below.

## Required Engineering

$\begin{array}{lll}\text { IE 2310 } & \text { Introduction to Industrial Engineering } & 4 \\ \text { and IE 2311 } & \text { and Recitation for IE 2310 }\end{array}$
IE $3425 \quad$ Engineering Database Systems 4
and IE 3426
IE 4510 and Recitation for IE 3425 Simulation Modeling and Analysis

| IE 4516 | Quality Assurance | 4 |
| :---: | :---: | :---: |
| IE 4522 and IE 4523 | Human Machine Systems and Lab for IE 4522 | 5 |
| IE 4525 | Logistics and Supply Chain Management | 4 |
| IE 4530 and IE 4531 | Manufacturing Systems and Techniques and Lab for IE 4530 | 5 |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |

## Engineering Electives

Complete 8 semester hours of technical electives in the 8
following subject areas:
CHME, CIVE, EECE, EMGT, IE, ME, and MEIE.

## Supplemental Credit

1 semester hour from the following course counts toward the 1 engineering requirement:

IE $3412 \quad$ Engineering Probability and Statistics
3 semester hours from the following course count toward the 3 engineering requirement:
IE 4512 Engineering Economy
2 semester hours from the following course count toward the 2
engineering requirement:

$$
\text { IE } 4515 \quad \text { Operations Research }
$$

2 semester hours from the following course count toward the 2 engineering requirement:
IE $4520 \quad$ Stochastic Modeling
engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the
engineering requirement:
GE 1502 Cornerstone of Engineering 2

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| MEIE 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| MEIE 3000 | Professional Issues in Engineering | 1 |

Additional Required Courses
The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

1 Graduate Courses taken toward the PlusOne program
Minimum 3.000 GPA required in graduate courses
Required Courses

| ENSY 5000 | Fundamentals of Energy System <br> Integration | 4 |
| :--- | :--- | ---: |
| ACCT 6200 | Financial Reporting and Managerial <br> Decision Making 1 | 3 |
| ACCT 6201 | Financial Reporting and Managerial <br> Decision Making 2 | 1.5 |
| FINA 6200 | Value Creation through Financial <br> Decision Making | 3 |



| IE 4525 | 4 MEIE 4701 <br> (EI, WI, CE) | 1 |  |
| :---: | :---: | :---: | :---: |
|  | MEIE 3000 | 1 |  |
| ME 6200 | 4 |  | 8 |
| 0 | 16 | 9 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | :---: |
| Undergraduate <br> Technical <br> elective4 MEIE 4702 <br> (EI, WI, CE) | 5 |  |
| General <br> Elective | 4 Graduate <br> elective | 4 |
| ENSY 5000 | 4 Graduate <br> elective | 4 |
| ACCT 6201 | 1.5 IE 4522 | 4 |
| FINA 6200 | 3 IE 4523 | 1 |
|  | 16.5 | 18 |

Total Hours: 156.5

## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 <br> MATH 2321 <br> (FQ) | 4 Co-op |
| :--- | :---: | :---: | :---: | :---: | | Hours Summer 2 |
| :---: |
| Vacation |$\quad$ Hours

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 Co-op | Co-op | IE 4530 | 4 |
| IE 3412 (AD) | 4 |  | IE 4531 | 1 |
| IE 4512 | 4 |  | ENGW 3302 | 4 |
|  |  | $(W D)$ |  |  |


| Technical <br> elective | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 9 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| IE 4510 | 4 ACCT 6200 | 3 EMGT 6225 | 4 Graduate elective | 4 |
| IE 4515 | 4 ME 6200 | 4 Graduate elective | 4 General Elective | 4 |
| IE 4516 | 4 Technical elective 2 | 4 |  |  |
| MEIE 3000 | 1 General elective | 4 |  |  |
| ENSY 5000 | 4 |  |  |  |
|  | 17 | 15 | 8 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| MEIE 4701 | 1 MEIE 4702 <br> (EI, WI, CE) | 5 |
| (EI, WI, CE) | 4 Graduate <br> elective | 4 |
| IE 4520 | 4 Graduate <br> elective | 4 |
| IE 4525 | 1.5 IE 4522 | 4 |
| ACCT 6201 | 13.5 | 1 |
| FINA 6200 |  | 18 |

Total Hours: 156.5

## Industrial Engineering, BSIE/Engineering Management, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in IE and MEIE courses

## Mathematics/Science Requirement

Complete 39 semester hours in mathematics and science as indicated below.

Required Mathematics/Science


$\left.\begin{array}{lcccr}\text { PHYS 1157 } & 1 & & & \\ \hline & 17 & 17 & 0 & \\ \text { Year 3 } & & & & \\ \text { Fall } & \text { Hours Spring } \\ \text { Co-op } & \text { IE 4510 } & 4 & \text { Vacation } & \text { Co-op }\end{array}\right]$

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | EMGT 6225 | 4 IE 4530 | $\begin{aligned} & 4 \text { ENGW } 3302 \\ & \text { (WD) } \end{aligned}$ | 4 |
|  | IE 4520 | 4 IE 4531 | 1 Graduate course | 4 |
|  | IE 4525 | 4 MEIE 4701 <br> (EI, WI, CE) | 1 |  |
|  | MEIE 3000 | 1 Graduate course | 4 |  |
|  | Graduate course | 4 |  |  |
|  | 0 | 17 | 10 | 8 |


| Year 5 | Hours Spring | Hours |
| :--- | :---: | :---: |
| Fall | (EI, WI, CE) | 5 |
| OR 6205 | 4 IE 4522 | 4 |
| Technical <br> elective | 4 IE 4523 | 1 |
| General <br> elective | 4 EMGT 5220 | 4 |
| Graduate <br> course | Graduate <br> course | 4 |


| 16 | 18 |
| :---: | :---: |

Total Hours: 153

## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | 4 MATH 1342 <br> (FQ) | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 2321 | 4 Co-op | Co-op | Vacation | 0 |
| (FQ) |  |  |  |  |


| IE 2310 (WI) | 4 |  |
| :---: | :---: | :---: |
| IE 2311 | 0 |  |
| IE 3425 | 4 |  |
| IE 3426 | 0 |  |
| PHYS 1155 <br> (ND) | 3 |  |
| PHYS 1156 <br> (AD) | 1 |  |
| PHYS 1157 | 1 |  |
| MEIE 2000 | 1 |  |
|  | $18$ $0$ | $\begin{array}{ll} 0 & 0 \end{array}$ |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IE 3412 (AD) | 4 Co-op | Co-op | ENGW 3302 <br> $(W D)$ | 4 |
| IE 4512 | 4 |  | IE 4530 | 4 |
| MATH 2341 | 4 | IE 4531 | 1 |  |
| Technical <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 9 |

Year 4 Hers

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| IE 4510 | 4 EMGT 6225 | 4 Graduate course | 4 Graduate course | 4 |
| IE 4515 | 4 General elective | 4 |  |  |
| IE 4516 | 4 General elective | 4 |  |  |
| MEIE 3000 | 1 Graduate course | 4 |  |  |
| Technical elective | 4 |  |  |  |
|  | 17 | 16 | 4 | 4 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| IE 4520 | 4 MEIE 4702 <br> (EI, WI, CE) | 5 |  |  |
| IE 4525 | 4 IE 4522 | 4 |  |  |
| MEIE 4701 <br> (EI, WI, CE ) | 1 IE 4523 | 1 |  |  |
| OR 6205 | 4 EMGT 5220 | 4 |  |  |
| Graduate course | 4 Graduate course | 4 |  |  |
| 17 |  | 18 |  |  |

Total Hours: 153

## Industrial Engineering, BSIE/ Operations Research, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in IE and MEIE courses

## Mathematics/Science Requirement

Complete 39 semester hours in mathematics and science as indicated below.

## Required Mathematics/Science

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |$\quad 4$

## Supplemental Credit

3 semester hours from the following course count toward the mathematics/science requirement:

| IE 3412 Engineering Probability and Statistics |  |
| :---: | :---: |
| 1 semester hour from the following course counts toward the mathematics/science requirement: | 1 |
| IE $4512 \quad$ Engineering Economy |  |
| 2 semester hours from the following course count toward the mathematics/science requirement: | 2 |
| IE 4515 Operations Research |  |
| 2 semester hours from the following course count toward the mathematics/science requirement: | 2 |
| IE 4520 Stochastic Modeling |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: | 1 |

## GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 57 semester hours in engineering as indicated below.

## Required Engineering

IE $2310 \quad$ Introduction to Industrial Engineering 4
and IE 2311 and Recitation for IE 2310
IE 3425 Engineering Database Systems 4
and IE 3426 and Recitation for IE 3425

3

| IE 4510 | Simulation Modeling and Analysis | 4 |
| :--- | :--- | ---: |
| IE 4516 | Quality Assurance | 4 |
| IE 4522 | Human Machine Systems |  |
| and IE 4523 | and Lab for IE 4522 |  |
| IE 4525 | Logistics and Supply Chain |  |
| IE 4530 Management | 5 |  |
| and IE 4531 | Manufacturing Systems and <br> Techniques <br> and Lab for IE 4530 | 5 |
| MEIE 4701 | Capstone Design 1 |  |
| MEIE 4702 | Capstone Design 2 | 1 |

## Engineering Electives

Complete 8 semester hours of technical electives in the 8 following subject areas:

CHME, CIVE, EECE, EMGT, IE, ME, and MEIE

## Supplemental Credit

1 semester hour from the following course counts toward the 1 engineering requirement:
IE $3412 \quad$ Engineering Probability and Statistics

3 semester hours from the following course count toward the 3 engineering requirement:
IE $4512 \quad$ Engineering Economy

2 semester hours from the following course count toward the 2 engineering requirement:

| IE 4515 | Operations Research |
| :--- | :--- |
| 2 semester hours from the following course count toward the | 2 | engineering requirement:

IE $4520 \quad$ Stochastic Modeling
3 semester hours from the following course count toward the
engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1
2 semester hours from the following course count toward the
engineering requirement:

## Professional Development

| GE 1000 | Introduction to the Study of Engineering | 1 |
| :--- | :--- | :--- |
| MEIE 2000 | Introduction to Engineering Co-op | 1 |
|  | Education |  |
| MEIE 3000 | Professional Issues in Engineering | 1 |

## Additional Required Courses

The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## 1 Graduate Courses Taken Toward the PlusOne Program

Minimum 3.000 GPA required in graduate courses

## Required Courses

| IE 6200 | Engineering Probability and Statistics | 4 |
| :--- | :--- | :--- |
| OR 6205 | Deterministic Operations Research | 4 |
| OR 7230 | Probabilistic Operation Research | 4 |
| OR 7245 | Network Analysis and Advanced | 4 |
| or MATH 7234 | Optimization | Optimization and Complexity |

If comparable undergraduate courses IE 3412 (or MATH 3081) and IE 4515 have been taken with a B+ or higher, IE 6200 and OR 6205, respectively, can be waived and substituted with other graduate courses.
The remaining 16 credits can be taken by one of the following
three options:

1. OR 7990-Thesis (8 credits), MEIE 6850 Research Seminar (0 credits), and two graduate electives (total of 8 credits) from the list below.
2. OR 7945-Master's Project (4 credits), MEIE 6850 Research Seminar ( 0 credits), and three graduate electives (total of 12 credits) from the list below.
3. Four courses (total of 16 credits) from the list below.

## Graduate Electives

Note: Students may choose any of the following electives and are not bound to any one category. The courses appear under various subject headings for information purposes only. Students may take other course work with the approval of their advisor. For courses outside the list below, a petition form must be submitted to the student's advisor and approved by the Graduate School of Engineering.

| Operations Research |  |
| :---: | :---: |
| OR 7235 | Inventory Theory |
| OR 7240 | Integer and Nonlinear Optimization |
| OR 7250 | Multi-Criteria Decision Making |
| OR 7260 | Constraint Programming |
| OR 7310 | Logistics, Warehousing, and Scheduling |
| EECE 7360 | Combinatorial Optimization |
| Industrial and Systems Engineering |  |
| IE 5400 | Healthcare Systems Modeling and Analysis |
| IE 5500 | Systems Engineering in Public Programs |
| IE 5617 | Lean Concepts and Applications |
| IE 5620 | Mass Customization |
| IE 5630 | Biosensor and Human Behavior Measurement |
| IE 6300 | Manufacturing Methods and Processes |
| IE 7615 | Neural Networks in Engineering |
| IE 7200 | Supply Chain Engineering |
| IE 7215 | Simulation Analysis |
| IE 7270 | Intelligent Manufacturing |
| IE 7275 | Data Mining in Engineering |
| IE 7280 | Statistical Methods in Engineering |
| IE 7285 | Statistical Quality Control |
| IE 7290 | Reliability Analysis and Risk Assessment |
| IE 7315 | Human Factors Engineering |
| Computer Science/Information Systems |  |
| CS 6140 | Machine Learning |
| CS 7805 | Theory of Computation |
| CSYE 6200 | Concepts of Object-Oriented Design |
| EECE 7313 | Pattern Recognition |
| INFO 6205 | Program Structure and Algorithms |
| INFO 6210 | Data Management and Database Design |


| CSYE 6200 | Concepts of Object-Oriented Design |
| :---: | :--- |
| CSYE 7280 | User Experience Design and Testing |
| Engineering Management |  |
| EMGT 5220 | Engineering Project Management |
| EMGT 5300 | Engineering/Organizational Psychology |
| EMGT 6225 | Economic Decision Making |
| EMGT 6305 | Financial Management for Engineers |
| Mathematics |  |
| MATH 7232 | Combinatorial Analysis |
| MATH 7233 | Graph Theory |
| MATH 7342 | Mathematical Statistics |
| MATH 7346 | Time Series |
| MATH 7347 | Statistical Decision Theory |
| MATH 7349 | Stochastic Calculus and Introduction to |
|  | No-Arbitrage Finance |

## Additional NUpath Courses

## Writing

A grade of $C$ or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions | Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete three academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirements

153 total semester hours required for the BS/MS degree Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |


| ENGW 1111 <br> (WF) | 4 General <br> elective | 4 |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 17 | 17 | 0 | 0 |



| Year 3 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op |  | IE 4515 |  | ENGW 3302 <br> (WD) | 4 | Co-op |  |
|  |  | IE 4516 | 4 | General elective | 4 |  |  |
|  |  | IE 4510 | 4 |  |  |  |  |
|  |  | Undergraduat technical elective | 4 |  |  |  |  |
|  | 0 |  | 16 |  | 8 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | IE 4520 | 4 IE 4530 | 4 Vacation |  |
|  | IE 4525 | 4 IE 4531 | 1 |  |
|  | MEIE 3000 | 1 Graduate elective | 4 |  |
|  | IE 6200 | 4 MEIE 4701 <br> (EI, WI, CE) | 1 |  |
|  | Graduate elective | 4 |  |  |
|  | 0 | 17 | 10 | 0 |

## Year 5



[^9]
## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 Co-op | Co-op | Vacation |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| IE 2310 (WI) | 4 |  |  |  |
| IE 3425 | 4 |  |  |  |
| IE 2311 | 0 |  |  |  |
| IE 3426 | 0 |  |  |  |
| MEIE 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 Co-op | Co-op | IE 4530 | 4 |
| IE 3412 (AD) | 4 |  | IE 4531 | 1 |
| IE 4512 | 4 |  | ENGW 3302 | 4 |
|  |  |  | (WD) |  |


| Undergraduat <br> technical <br> elective | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 9 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| IE 4515 | 4 General eective | 4 Graduate elective | 4 Vacation |  |
| IE 4516 | 4 IE 6200 | 4 Graduate elective | 4 |  |
| IE 4510 | 4 General elective | 4 |  |  |
| Undergraduat technical elective | 4 Graduate elective | 4 |  |  |
| MEIE 3000 | 1 |  |  |  |
|  | 17 | 16 | 8 | 0 |


| Year 5 |  |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hours |
| IE 4520 | 4 MEIE 4702 <br> (EI, WI, CE) | 5 |
| IE 4525 | 4 IE 4522 | 4 |
| MEIE 4701 <br> (EI, WI, CE) | 1 IE 4523 | 1 |
| OR 6205 | 4 OR 7230 | 4 |
| Graduate <br> elective | 4 OR 7245 | 4 |
| MEIE 6850 | 0 | 17 |

Total Hours: 153

## Mechanical Engineering, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below:

## Required Mathematics/Science

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |$\quad 4$


| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 |
| :--- | :--- | ---: |
| Math/Science Elective |  |$\quad 5$

## Engineering

Complete 68 semester hours in engineering as indicated below:

## Required Engineering

| EECE 2210 <br> and EECE 2211 | Electrical Engineering and Lab for EECE 2210 | 5 |
| :---: | :---: | :---: |
| ME 2340 and ME 2341 | Introduction to Material Science and Lab for ME 2340 | 5 |
| ME 2350 | Engineering Mechanics and Design | 4 |
| ME 2355 and ME 2356 | Mechanics of Materials and Lab for ME 2355 | 5 |
| ME 2380 | Thermodynamics | 4 |
| ME 3455 and ME 3456 | Dynamics and Vibrations and Lab for ME 3455 | 5 |
| $\begin{aligned} & \text { ME } 3475 \\ & \text { or ME } 3480 \end{aligned}$ | Fluid Mechanics International Applications of Fluid Mechanics | 4 |
| ME 4505 and ME 4506 | Measurement and Analysis with Thermal Science Application and Lab for ME 4505 | 5 |
| ME 4508 | Mechanical Engineering Computation and Design | 4 |
| ME 4550 | Mechanical Engineering Design | 4 |
| ME 4555 | System Analysis and Control | 4 |
| ME 4570 | Thermal Systems Analysis and Design | 4 |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |
| Mechanical and Industrial Engineering Technical Elective |  |  |
| Complete one technical elective in one of the following subject areas: |  | 4 |
| EMGT, ENGR, IE, ME, or MEIE. |  |  |
| Supplemental Credit |  |  |

3 semester hours from the following course counts toward 3 the engineering requirement:

GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course counts toward 2
the engineering requirement:
GE 1502 Cornerstone of Engineering 2

## Professional Development

| Required Professional Development |  |  |
| :---: | :---: | :---: |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| MEIE 2000 | Introduction to Engineering Co-op Education | 1 |
| MEIE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will apply to the professional development area: |  | 2 |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |
| Additional NUpath Courses |  |  |
| Writing |  |  |
| A grade of C or higher is required in each course: |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete 2 academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

Graduate Courses taken as an Undergraduate Student
A 3.000 GPA is required in all graduate courses.

Complete the following course:

| MEIE 6850 | Research Seminar in Mechanical and Industrial Engineering | 0 |
| :---: | :---: | :---: |
| Complete up the concent the above re | from the following list or from one of low. These courses may double count in ts. | 0-32 |
| ME 7990 | Thesis |  |
| MATL 500 | TL 7999 |  |
| ME 5000 |  |  |
| MATERIAL S | CONCENTRATION COURSES |  |
| ME 5600 | Materials Processing and Process Selection |  |
| MECHANICS | NTRATION COURSES |  |
| ME 5650 | Advanced Mechanics of Materials |  |
| ME 5655 | Dynamics and Mechanical Vibration |  |
| ME 5657 | Finite Element Method |  |
| ME 5659 | Control Systems Engineering |  |


| ME 6200 | Mathematical Methods for Mechanical Engineers 1 |
| :---: | :---: |
| or ME 6201 | Mathematical Methods for Mechanical Engineers 2 |
| ME 7210 | Elasticity and Plasticity |
| THERMOFLUIDS CONCENTRATION COURSES |  |
| ME 5690 | Gas Turbine Combustion |
| ME 5695 | Aerodynamics |
| ME 6200 | Mathematical Methods for Mechanical Engineers 1 |
| or ME 6201 | Mathematical Methods for Mechanical Engineers 2 |
| ME 7270 | General Thermodynamics |
| ME 7275 | Essentials of Fluid Dynamics |
| ME 7280 | Statistical Thermodynamics |
| ME 7285 | Heat Conduction and Thermal Radiation |
| or ME 7290 | Convective Heat Transfer |
| ME 7295 | Multiscale Flow and Transport Phenomena |
| ME 7300 | Combustion and Air Pollution |
| ME 7305 | Fundamentals of Combustion |
| ME 7310 | Computational Fluid Dynamics with Heat Transfer |
| ME 5685 | Solar Thermal Engineering |
| ME 7330 | Turbulent Flow |
| ME 7340 | Turbomachinery Design |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

156 total semester hours required

Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | $\begin{aligned} & \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 | General Elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| PHYS 1155 <br> (ND) | 3 | ME 2340 <br> (WI) | 4 |  |  |
| General Elective | 4 | ME 2341 | 1 |  |  |
| $\begin{aligned} & \text { PHYS } 1156 \\ & \text { (AD) } \end{aligned}$ | 1 | ME 2355 | 4 |  |  |
| PHYS 1157 | 1 | ME 2356 | 1 |  |  |
| ME 2350 | 4 | ME 2380 | 4 |  |  |
|  |  | MEIE 2000 | 1 |  |  |
|  | 17 |  | 19 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 EECE 2210 | 4 ME 3475 | 4 Co-op | 0 |
|  | EECE 2211 | 1 ENGW 3302 <br> (WD) | 4 |  |
|  | ME 3455 | 4 |  |  |
|  | ME 3456 | 1 |  |  |
|  | ME 4508 | 4 |  |  |
|  | ME 4555 | 4 |  |  |
|  | 0 | 18 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ME 4505 <br> (AD) | 4 Vacation | 0 ME 4550 | 4 |
|  | ME 4506 | 1 | MEIE 4701 <br> (EI, WI, CE) | 1 |
|  | ME or IE technical elective | 4 | Math/ <br> Science <br> Elective | 4 |
|  | ME 4570 | 4 |  |  |
|  | MEIE 3000 | 1 |  |  |
|  | MEIE graduate elective | 4 |  |  |
|  | 0 | 18 | 0 | 9 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| MEIE 4702 <br> (EI, WI, CE) | 5 MEIE <br> graduate <br> elective | 4 |
| MEIE <br> graduate <br> elective | 4 MEIE <br> graduate <br> elective | 4 |
| MEIE <br> graduate <br> elective | 4 MEIE <br> graduate <br> elective | 4 |
| MEIE <br> graduate <br> elective | M MEIE <br> graduate <br> elective | 4 |
|  | MEIE 6850 | 0 |

Total Hours: 156

Five Years, Two Co-ops in Spring/Summer 1


Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 Co-op | Co-op | Vacation |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| ME 2350 | 4 |  |  |  |
| MEIE 2000 | 1 |  |  |  |
| General Elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 2341 | 4 Co-op | Co-op | ME 3475 | 4 |
| ME 2340 <br> (WI) | 4 |  | ENGW 3302 | 4 |
| ME 2341 | 1 |  |  |  |
| ME 2355 | 4 |  |  |  |
| ME 2356 | 1 |  |  | 8 |
| ME 2380 | 4 |  | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ME 3455 | 4 EECE 2210 | 4 Vacation | 0 ME 4550 | 4 |
| ME 3456 | 1 EECE 2211 | 1 | MEIE 4701 <br> (EI, WI, CE) | 1 |
| ME 4505 <br> (AD) | 4 ME 4555 | 4 | Math/ <br> Science <br> Elective | 4 |
| ME 4506 | 1 MEIE 3000 | 1 |  |  |
| ME 4508 | 4 MIE <br> Technical Elective | 4 |  |  |
| ME 4570 | 4 Graduate Course | 4 |  |  |
|  | 18 | 18 | 0 | 9 |


| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| MEIE 4702 <br> (EI, WI, CE) | 5 Graduate <br> Course | 4 |
| Graduate <br> Course | Graduate <br> Course | 4 |
| Graduate <br> Course | 4 Graduate <br> Course | 4 |
| Graduate <br> Course | Graduate <br> Course | 4 |
|  | MEIE 6850 | 0 |

Total Hours: 156

Mechanical Engineering, BS/Energy Systems, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below:

Required Mathematics/Science

| CHEM 1151 and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 | 5 |


| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for PHYS 1155 | 5 |
| :---: | :---: | :---: |
| Math/Science Elective |  | 4 |
| Please complete one of the following |  |  |
| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | 5 |
| BIOL 1117 and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 and Lab for CHEM 2311 and Recitation for CHEM 2311 | 5 |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 2310 | Discrete Mathematics |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 3601 | Classical Dynamics | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| Supplemental Credit |  |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Engineering

Complete 68 semester hours in engineering as indicated below:

## Required Engineering

| EECE 2210 and EECE 2211 | Electrical Engineering and Lab for EECE 2210 | 5 |
| :---: | :---: | :---: |
| ME 2340 and ME 2341 | Introduction to Material Science and Lab for ME 2340 | 5 |
| ME 2350 | Engineering Mechanics and Design | 4 |
| ME 2355 and ME 2356 | Mechanics of Materials and Lab for ME 2355 | 5 |
| ME 2380 | Thermodynamics | 4 |
| ME 3455 and ME 3456 | Dynamics and Vibrations and Lab for ME 3455 | 5 |
| ME 3475 <br> or ME 3480 | Fluid Mechanics <br> International Applications of Fluid Mechanics | 4 |
| ME 4505 and ME 4506 | Measurement and Analysis with Thermal Science Application and Lab for ME 4505 | 5 |
| ME 4508 | Mechanical Engineering Computation and Design | 4 |
| ME 4550 | Mechanical Engineering Design | 4 |
| ME 4555 | System Analysis and Control | 4 |
| ME 4570 | Thermal Systems Analysis and Design | 4 |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |
| Mechanical and Industrial Engineering Technical Elective |  |  |
| Complete one technical elective in one of the following subject areas: |  | 4 |
| EMGT, ENGR, IE, ME, or MEIE. |  |  |
| Supplemental Credit |  |  |

3 semester hours from the following course counts toward the engineering requirement:

GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course counts toward 2 the engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

| Required Professional Development |  |  |
| :--- | :--- | :--- |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| MEIE 2000 | Introduction to Engineering Co-op | 1 |
| MEIE 3000 | Education | 1 |

## Additional Required Courses

The remaining credit from each of the following courses will
apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Writing

| A grade of C or higher is required in each course: |  |  |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical <br> or ENGW 3315 | Professions <br> Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

NUpath Requirements through General Electives
NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete 2 academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Graduate Courses taken toward the PlusOne program Graduate Requirements

| ACCT 6200 | Financial Reporting and Managerial <br> Decision Making 1 | 3 |
| :--- | :--- | ---: |
| ACCT 6201 | Financial Reporting and Managerial <br> Decision Making 2 | 1.5 |
| EMGT 6225 | Economic Decision Making <br> ENSY 5000 | Fundamentals of Energy System <br> Integration |
| FINA 6200 | Value Creation through Financial <br> Decision Making | 4 |
| ME 6200 | Mathematical Methods for Mechanical <br> Engineers 1 | 4 |
| MEIE 6850 | Research Seminar in Mechanical and <br> Industrial Engineering | 3 |
| Required Graduate Electives |  |  |
| Complete 16 semester hours from the following |  |  |
| ARCH 5210 | Environmental Systems <br> and ARCH 5211 | 0 |


| CHEM 5651 | Materials Chemistry of Renewable Energy |
| :---: | :---: |
| CHEM 5652 | Fundamental Science of Photovoltaics |
| CHME 5204 | Heterogeneous Catalysis |
| CHME 5630 | Biochemical Engineering |
| CIVE 5270 | Environmental Protection and Management |
| EECE 5680 | Electric Drives |
| EECE 5682 | Power Systems Analysis 1 |
| EECE 5684 | Power Electronics |
| EECE 5686 | Electrical Machines |
| EECE 7239 | Special Topics in Power Systems |
| EECE 7398 | Special Topics |
| EMGT 5220 | Engineering Project Management |
| ENSY 5585 | Wind Energy Systems |
| ENSY 7374 | Special Topics in Energy Systems |
| ENSY 7978 | Independent Study |
| LPSC 7312 | Cities, Sustainability, and Climate Change |
| ME 5645 | Environmental Issues in Manufacturing and Product Use |
| ME 5685 | Solar Thermal Engineering |
| ME 5690 | Gas Turbine Combustion |
| ME 7270 | General Thermodynamics |
| ME 7300 | Combustion and Air Pollution |
| ME 7305 | Fundamentals of Combustion |
| OR 6205 | Deterministic Operations Research |
| PPUA 7238 | Climate Change and Urbanization in Developing Countries |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

159.5 total semester hours required

Minimum 3.000 GPA required in all graduate courses
Plan of Study
Five Years, Two Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | $\begin{aligned} & \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 | Vacation |  | Vacation |  |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |  |  |
| ENGW 1111 <br> (WF) | 4 | General elective | 4 |  |  |  |  |

Year 2


| Year 3 <br> Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | EECE 2210 | 4 ME 3475 | 4 Co-op |  |
|  | EECE 2211 | 1 ENGW 3302 <br> (WD) | 4 |  |
|  | ME 3455 | 4 |  |  |
|  | ME 3456 | 1 |  |  |
|  | ME 4508 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | ME 4505 <br> (AD) | 4 Vacation | MEIE 4701 <br> (EI, WI, CE) | 1 |
|  | ME 4506 | 1 | ME 4550 | 4 |
|  | MEIE 3000 | 1 | ME 6200 | 4 |
|  | ME 4570 | 4 |  |  |
|  | EMGT 6225 | 4 |  |  |
|  | ACCT 6200 | 3 |  |  |
|  | 0 | 17 | 0 | 9 |

## Year 5

Fall
Hours Spring Hours


Total Hours: 159.5

## Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General Elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 Co-op | Co-op | Vacation |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| ME 2350 | 4 |  |  |  |
| MEIE 2000 | 1 |  |  |  |
| Science/ <br> Math <br> Elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2341 | 4 Co-op | Co-op | ME 3475 | 4 |
| ME 2340 | 4 |  | ENGW 3302 | 4 |
| (WI) |  |  |  |  |
| ME 2341 | 1 |  |  |  |
| ME 2355 | 4 |  |  | 8 |
| ME 2356 | 1 |  | 0 | 8 |
| ME 2380 | 4 |  |  |  |
|  | 18 | 0 |  |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ME 3455 | 4 EECE 2210 | 4 Vacation | ME 4550 | 4 |
| ME 3456 | 1 EECE 2211 | 1 | MEIE 4701 <br> (EI, WI, CE) | 1 |
| ME 4505 | 4 ME 4555 | 4 | ME 6200 | 4 |
| (AD) | 1 MEIE 3000 | 1 |  |  |
| ME 4506 | 4 EMGT 6225 | 4 |  |  |
| ME 4508 | 4 ACCT 6200 | 3 | 0 | 9 |

Year 5


Total Hours: 159.5

## Mechanical Engineering, BS/ Engineering Management, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics/Science Requirement

Complete 35 semester hours in mathematics and science as indicated below:

## Required Mathematics/Science

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |$\quad 4$

## Science/Math Elective

Complete one of the following: 4-5
BIOL 1115

and BIOL 1116 $\quad$| General Biology 1 for Engineers |
| :--- |
| and Lab for BIOL 1115 |

## Supplemental Credit

1 semester hour from the following course counts toward the 1 mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Engineering

Complete 68 semester hours in engineering as indicated below:

## Required Engineering

| EECE 2210 | Electrical Engineering | 5 |
| :--- | :--- | ---: |
| and EECE 2211 | and Lab for EECE 2210 |  |
| ME 2340 | Introduction to Material Science <br> and ME 2341 | and Lab for ME 2340 |


| ME 2355 | Mechanics of Materials |  |
| :--- | :--- | ---: |
| and ME 2356 | and Lab for ME 2355 | 5 |
| ME 2380 | Thermodynamics | 4 |
| ME 3455 <br> and ME 3456 | Dynamics and Vibrations <br> ME 3475 Lab for ME 3455 <br> or ME 3480 | Fluid Mechanics <br> International Applications of Fluid Mechanics |
| ME 4505 <br> and ME 4506 | Measurement and Analysis with <br> Thermal Science Application <br> and Lab for ME 4505 | 5 |
| ME 4508 | Mechanical Engineering Computation <br> and Design | 5 |
| ME 4550 | Mechanical Engineering Design | 4 |
| ME 4555 | System Analysis and Control | 4 |
| ME 4570 | Thermal Systems Analysis and Design | 4 |
| MEIE 4701 | Capstone Design 1 | 4 |
| MEIE 4702 | Capstone Design 2 | 1 |


| Mechanical and Industrial Engineering Technical Elective |  |
| :---: | :---: |
| Complete one technical elective in one of the following | 4 |

## subject areas:

```
EMGT, ENGR, IE, ME, or MEIE
```


## Supplemental Credit

3 semester hours from the following course count toward the 3 engineering requirement:
GE $1501 \quad$ Cornerstone of Engineering 1

2 semester hours from the following course count toward the 2 engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

| Required Professional Development |  |  |
| :---: | :---: | :---: |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| MEIE 2000 | Introduction to Engineering Co-op Education | 1 |
| MEIE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| The remaining credit from each of the following courses will apply to the professional development area: |  | 2 |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Additional NUpath Courses

Writing
A grade of $C$ or higher is required in each course:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions | Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

5 Required General Electives
Complete two academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Graduate Courses Taken Toward the PlusOne Program

Minimum 3.000 GPA required in graduate courses

## Required Graduate Courses

| EMGT 5220 | Engineering Project Management | 4 |
| :--- | :--- | :--- |
| EMGT 6225 | Economic Decision Making | 4 |
| IE 6200 | Engineering Probability and Statistics | 4 |
| OR 6205 | Deterministic Operations Research | 4 |

If comparable undergraduate courses IE 3412 (or MATH 3081) and IE 4515 have been taken with a B+ or higher, IE 6200 and OR 6205, respectively, can be waived and substituted with other graduate courses.
The remaining 16 credits can be taken by one of the following three options:

1. EMGT 7990-Thesis (8 credits) and two graduate electives (total of 8 credits) from the list below.
2. EMGT 7945-Masters Project (4 credits) and three graduate electives (total of 12 credits) from the list below.
3. Four courses (total of 16 credits) from the list below.

| Graduate Technical Electives |  |
| :---: | :---: |
| CSYE 6200 | Concepts of Object-Oriented Design |
| CSYE 6205 | Concepts of Object-Oriented Design with C++ |
| CSYE 6210 | Component Software Development |
| CSYE 6220 | Enterprise Software Design |
| CSYE 7230 | Software Engineering |
| CSYE 7270 | Building Virtual Environments |
| CSYE 7280 | User Experience Design and Testing |
| ENSY 5000 | Fundamentals of Energy System Integration |
| EMGT 5300 | Engineering/Organizational Psychology |
| EMGT 6305 | Financial Management for Engineers |
| EMGT 7978 | Independent Study |
| ENTR 6200 | Enterprise Growth and Innovation |
| ENTR 6212 | Business Planning for New Ventures |
| ENTR 6218 | Business Model Design and Innovation |
| ENTR 6219 | Financing Ventures from Early Stage to Exit |
| GE 5100 | Product Development for Engineers |
| IE 5400 | Healthcare Systems Modeling and Analysis |
| IE 5500 | Systems Engineering in Public Programs |
| IE 5617 | Lean Concepts and Applications |
| IE 5620 | Mass Customization |
| IE 5640 | Data Mining for Engineering Applications |
| IE 6300 | Manufacturing Methods and Processes |
| IE 7200 | Supply Chain Engineering |
| IE 7215 | Simulation Analysis |
| IE 7255 | Manufacturing Processes |
| IE 7270 | Intelligent Manufacturing |


| IE 7275 | Data Mining in Engineering |
| :---: | :---: |
| IE 7280 | Statistical Methods in Engineering |
| IE 7285 | Statistical Quality Control |
| IE 7290 | Reliability Analysis and Risk Assessment |
| IE 7315 | Human Factors Engineering |
| IE 7615 | Neural Networks in Engineering |
| INFO 6210 | Data Management and Database Design |
| INFO 6215 | Business Analysis and Information Engineering |
| INFO 6245 | Planning and Managing Information Systems Development |
| INFO 7245 | Agile Software Development |
| INFO 7260 | Business Process Engineering |
| INFO 7275 | Advanced Database Management Systems |
| INFO 7285 | Organizational Change and IT |
| INFO 7290 | Data Warehousing and Business Intelligence |
| INFO 7330 | Information Systems for HealthcareServices Delivery |
| INFO 7365 | Enterprise Architecture Planning and Management |
| INFO 7390 | Advances in Data Sciences and Architecture |
| MGSC 6206 | Management of Service and Manufacturing Operations |
| OR 7230 | Probabilistic Operation Research |
| OR 7235 | Inventory Theory |
| OR 7240 | Integer and Nonlinear Optimization |
| OR 7245 | Network Analysis and Advanced Optimization |
| OR 7250 | Multi-Criteria Decision Making |
| OR 7310 | Logistics, Warehousing, and Scheduling |
| SCHM 6212 | Executive Roundtable in Supply Chain Management |
| SCHM 6214 | Sourcing and Procurement |
| SCHM 6215 | Supply Chain Analytics |
| SCHM 6221 | Sustainability and Supply Chain Management |
| SCHM 6222 | Managing Emerging Issues in Supply Chain Management |
| SCHM 6223 | Managing Healthcare Supply Chain Operations |
| SCHM 6224 | Demand Planning and Forecasting |
| TECE 6200 | Innovation and Entrepreneurial Growth |
| TECE 6222 | Emerging and Disruptive Technologies |
| TECE 6230 | Entrepreneurial Marketing and Selling |
| TECE 6250 | Lean Design and Development |
| TECE 6300 | Managing a Technology-Based Business |
| TECE 6340 | The Technical Entrepreneur as Leader |
| TELE 5310 | Fundamentals of Communication Systems |
| TELE 5330 | Data Networking |

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

156 total semester hours required
Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1341 <br> (FQ) | $\begin{aligned} & 4 \text { MATH } 1342 \\ & \text { (FQ) } \end{aligned}$ | 4 Vacation | Vacation |  |
| CHEM 1151 | 4 PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 PHYS 1153 | 1 |  |  |
| GE 1501 | 4 GE 1502 (ER) | 4 |  |  |
| ENGW 1111 <br> (WF) | 4 General elective | 4 |  |  |
|  | 17 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { MATH } 2321 \\ & \text { (FQ) } \end{aligned}$ | 4 MATH 2341 | 4 Vacation | Co-op |  |
| PHYS 1155 <br> (ND) | 3 EECE 2210 | 4 |  |  |
| PHYS 1156 <br> (AD) | 1 EECE 2211 | 1 |  |  |
| PHYS 1157 | 1 ME 2355 | 4 |  |  |
| ME 2350 | 4 ME 2356 | 1 |  |  |
| General elective | 4 ME 2380 | 4 |  |  |
|  | MEIE 2000 | 1 |  |  |
|  | 17 | 19 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | ME 2340 | 4 ME 3475 | 4 Co-op |  |
|  | (WI) |  |  |  |
|  | ME 2341 | 1 ENGW 3302 |  |  |
|  | (WD) | 4 |  |  |
|  | ME 3455 | 4 |  |  |
| ME 3456 | 1 |  | 0 |  |

Year 4
Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours

|  |  | ME 4506 | 1 | MEIE 4701 <br> (EI, WI, CE) | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ME 4570 | 4 | Science/ <br> math elective | 4 |
|  |  | MEIE 3000 | 1 |  |  |
|  |  | IE 6200 | 4 |  |  |
|  |  | Graduate elective | 4 |  |  |
|  | 0 |  | 18 | 0 | 9 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| MEIE 4702 <br> (EI, WI, CE) |  | MIE <br> technical elective | 4 t |  |  |
| EMGT 5220 | 4 | Graduate elective | 4 |  |  |
| EMGT 6225 | 4 | Graduate elective | 4 |  |  |
| OR 6205 |  | Graduate elective | 4 |  |  |
| 17 |  |  | 12-16 |  |  |

Total Hours: 152-156

## Five Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { MATH } 1341 \\ & \text { (FQ) } \end{aligned}$ | 4 | MATH 1342 <br> (FQ) | 4 Vacation | Vacation |  |
| CHEM 1151 |  | PHYS 1151 <br> (ND) | 3 |  |  |
| CHEM 1153 | 0 | PHYS 1152 <br> (AD) | 1 |  |  |
| GE 1000 | 1 | PHYS 1153 | 1 |  |  |
| GE 1501 | 4 | GE 1502 (ER) | 4 |  |  |
| $\begin{aligned} & \text { ENGW } 1111 \\ & \text { (WF) } \end{aligned}$ | 4 | General elective | 4 |  |  |
|  | 17 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 2321 <br> (FQ) | 4 Co-op | Co-op | Vacation |  |
| PHYS 1155 <br> (ND) | 3 |  |  |  |
| PHYS 1156 <br> (AD) | 1 |  |  |  |
| PHYS 1157 | 1 |  |  |  |
| ME 2350 | 4 |  |  |  |
| MEIE 2000 | 1 |  |  |  |
| General elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 2341 | 4 Co-op | Co-op | ME 3475 | 4 |


| ME 2340 <br> (WI) | 4 | ENGW 3302 <br> (WD) | 4 |  |
| :--- | :---: | :--- | :--- | :--- |
| ME 2341 | 1 |  |  |  |
| ME 2355 | 4 |  |  |  |
| ME 2356 | 1 |  |  |  |
| ME 2380 | 4 | 0 | 0 | 8 |
|  | 18 |  |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ME 3455 | 4 ME 4555 | 4 Vacation | ME 4550 | 4 |
| ME 3456 | 1 EECE 2210 | 4 | MEIE 4701 <br> (EI, WI, CE) | 1 |
| ME 4505 <br> (AD) | 4 EECE 2211 | 1 | Science/ <br> math elective | 4 |
| ME 4506 | 1 MEIE 3000 | 1 |  |  |
| ME 4508 | 4 IE 6200 | 4 |  |  |
| ME 4570 | 4 Graduate elective | 4 |  |  |
|  | 18 | 18 | 0 | 9 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| MEIE 4702 | 5 MIE <br> technical <br> (EI, WI, CE) | 4 |
| EMGT 5220 | 4 Graduate <br> elective | 4 |
| EMGT 6225 | 4 Graduate <br> elective | 4 |
| OR 6205 | 4 Graduate <br> elective | 4 |
|  | 17 | 16 |

Total Hours: 156

## Biomechanical Engineering, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Required Biology

| Complete one of the following: |  |
| :--- | :--- |
| BIOL 1111 <br> and BIOL 1112 | General Biology 1 |
| BIOL 1115 Lab for BIOL 1111 |  |
| and BIOL 1116 | General Biology 1 for Engineers |
| BIOL 1117 and Lab for BIOL 1115 <br> and BIOL 1118 Integrated Anatomy and Physiology 1 Lab for BIOL 1117 |  |

## Required Mechanical Engineering

| ME 5665 | Musculoskeletal Biomechanics | 4 |
| :--- | :--- | :--- |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |

## Technical Elective

Additional electives may be approved by your academic advisor.

| Complete one of the following: |
| :--- |
| IE 4520 Stochastic Modeling <br> IE 4522 Human Machine Systems <br> and IE 4523 and Lab for IE 4522 <br> ME 4640 Mechanical Behavior and Processing of <br> Materials <br> ME 5650 Advanced Mechanics of Materials <br> ME 5655 Dynamics and Mechanical Vibration <br> PHYS 4621 Biological Physics 1 |

## GPA Requirement

2.000 GPA required in the minor

## Industrial Engineering, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| IE 2310 | Introduction to Industrial Engineering | 4 |
| :--- | :--- | :--- |
| IE 4515 | Operations Research | 4 |
| IE 3412 | Engineering Probability and Statistics | 4 |
|  | (or equivalent) |  |

## Technical Elective

Consult mechanical and industrial engineering academic advisor for additional electives.

| Complete one of the following: |
| :--- |
| IE 3425 Engineering Database Systems <br> IE 4510 Simulation Modeling and Analysis <br> IE 4512 Engineering Economy <br> IE 4516 Quality Assurance <br> IE 4520 Stochastic Modeling <br> IE 4522 Human Machine Systems <br> IE 4525 Logistics and Supply Chain <br>  <br> IE 4530 |

## GPA Requirement

2.000 GPA required in the minor

## Mechanical Engineering, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| ME 2350 | Engineering Mechanics and Design | 4 |
| :--- | :--- | :--- |
| ME 2380 | Thermodynamics | 4 |

## Mechanical Engineering Technical Electives

Complete two of the following:

| ME 2340 | Introduction to Material Science |
| :--- | :--- |
| ME 2355 | Mechanics of Materials |


| ME 3455 | Dynamics and Vibrations |
| :--- | :--- |
| ME 3475 | Fluid Mechanics |
| or ME 3480 | International Applications of Fluid Mechanics |
| ME 4508 | Mechanical Engineering Computation <br> and Design |
| ME 4550 | Mechanical Engineering Design |
| ME 4555 | System Analysis and Control |
| ME 4570 | Thermal Systems Analysis and Design |

## GPA Requirement

2.000 GPA required in the minor

## Bouvé College of Health Sciences

Website (http://www.northeastern.edu/bouve)
John R. Reynolds, PharmD, RPh, Interim Dean
Debra L. Franko, PhD, Associate Dean for Faculty Affairs
Stephen Cramer, MBA, Associate Dean, Administration and Finance
John Griffith, PhD, Associate Dean for Research
Christine Letzeiser, PhD, RN, Assistant Dean, Enrollment and Student Services
Jeanine K. Mount, PhD, RPh, Associate Dean for Academic Affairs
Anne M. Sullivan, MEd, Assistant Dean for Administrative Affairs
Dean's Office
215 Behrakis Health Sciences Center
617.373.3323
617.373 .3030 (fax)

Bouve_College_of_Health_Sciences@northeastern.edu
Undergraduate Office of Student Services
120 Behrakis Health Sciences Center
617.373.3320
617.373 .8994 (fax)
bouvestudentservices@northeastern.edu
The 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 health professionals, nurses, and pharmacists. The college seeks to prepare students to become effective professional practitioners and leaders, enter graduate schools, and work in many areas responsible for the delivery of healthcare.

There are three schools within the Bouve College of Health Sciences: the School of Nursing, the School of Pharmacy, and the School of Health Professions, which comprises the following majors: health science and physical therapy. The college offers students a healthcare education that features a curriculum of highly relevant and closely integrated basic courses in the physical, biological, behavioral, and social and administrative sciences; on-site involvement in clinical patient care, including introductory and advanced practice experiences in pharmacy and clinical experiences in nursing, physical therapy, and other health professions; integrated experiential education opportunities in the form of the university's signature cooperative 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 American Association of Colleges of Nursing, the American Association of Colleges of Pharmacy, and the American Council of Academic Physical Therapy.

## Academic Requirements

Students are responsible for following the curriculum plan for their respective 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, abiding by course prerequisites, regularly checking their degree audits, and knowing the consequences for unsatisfactory academic progress. Any exceptions to a student's curriculum plan will be determined by protocols
established by the program, after consultation with the student's academic advisor.

COLLEGE ACADEMIC STANDARDS-PROFESSIONAL COURSES
Students must receive a grade of C or better in professional courses.
Professional courses are those required courses taught within the major/ college as identified by course subject code: EXSC, HLTH, HSCI, NRSG, PHMD, PHSC, PHTH, and PT.

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. Those courses labeled "professional elective" (i.e. certain pharmacy courses), are subject to the C or better requirement.

| COLLEGE ACADEMIC STANDARDS-PROFESSIONAL PREREQUISITES |  |  |
| :--- | :--- | :--- |
| Major | Professional <br> Prerequisite <br> Designation | Minimum Passing <br> Grade |
| Health Science | BIOL, CHEM, MATH | C- |
| Nursing | BIOL, CHEM, MATH | C |
| Pharmacy | PSYC 3404 | C |
| Physical Therapy | BIOL, CHEM, MATH, <br> PHYS | C |
|  | BIOL, EXSC, PHYS, <br> PSYC | C |
|  | CHEM, MATH | C- |

Courses in the above-listed subjects that are taken as electives are exempt from the C - or higher rule and the university's minimum satisfactory grade will be accepted. Those courses labeled "professional elective" (i.e. certain pharmacy courses), are subject to the C or better requirement.

## COLLEGE ACADEMIC STANDARDS-ALL OTHER COURSES

The university's minimum passing grade for the course will be accepted. Note: The university requires a minimum grade of C for First-Year Writing (ENGW 1111) and Advanced Writing in the Health Professions (ENGW 3306).

## PROGRESSION WITHIN BOUVÉ

- First-year students must complete at least 27 semester hours and meet all major prerequisite course requirements to progress to sophomore status.
- To progress into the subsequent year of professional courses, students must have completed all professional prerequisites with the required minimum passing grade as noted in the chart above.
- To progress into the subsequent semester of professional courses, students must have completed all professional courses with a grade of C or better.
- Pharmacy students must receive grades of $C$ or better in all professional prerequisites, have satisfactorily completed all courses in year one (freshman year) and year two (sophomore year) of the curriculum, and have a minimum GPA of 3.000 at the completion of the spring semester of the sophomore year to progress into the first professional year of the program. Pharmacy students who are admitted as freshmen in the fall of 2016 and thereafter will be required to meet the above criteria and have an overall GPA of 3.000 or higher in professional prerequisites and professional
courses (see earlier chart) at the completion of the spring semester of the sophomore year to progress into the first professional year of the program. In addition, students must demonstrate, through a personal interview, good verbal and written communication skills, understanding of the pharmacy profession, and commitment to patient care, based on criteria set by the Doctor of Pharmacy program. Students must maintain an overall GPA of 3.000 or higher during the graduate phase of the Doctor of Pharmacy program.
- For pharmacy students, failure to earn a satisfactory grade (S) in a co-op will be counted as a professional course failure.
- Students interested in earning the Bachelor of Science in Pharmaceutical Sciences degree must be fully matriculated Northeastern University students at the time of application. See "Changing Majors (p. 29)" for more information.
- Physical therapy students must receive the minimum passing grade as noted in the chart above for all professional prerequisites, have satisfactorily completed all academic courses in the preprofessional phase of the curriculum, have an overall GPA of 3.000 or higher, a science prerequisite GPA of 3.000 or higher, and have completed a minor or its equivalent by the end of the preprofessional phase of the program (summer 1, semester year two) in order to progress into the professional phase of the Doctorate of Physical Therapy program. This requirement is intended to provide students with a robust foundation in the humanities, social sciences, and natural sciences that is required for successful completion of the doctoral program in physical therapy.
- Students who incur an incomplete grade in a prerequisite course may not progress into the subsequent courses(s). Any exceptions will be determined by protocols established by the program, after consultation with the student's academic advisor.


## CRITERIA FOR UNIVERSITY ACADEMIC PROBATION

Note: Notation of academic probation will appear on internal records but not on permanent transcripts.

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

Students who fail to attain an overall GPA of 1.800 at the end of each semester of their freshman year and/or fail to earn at least 12 semester hours in the semester just completed will be placed on academic probation effective for the following semester.

## Upperclass and Transfer Students

Students who fail to attain a minimum cumulative GPA of 2.000 at the end of each semester and/or fail to earn at least 12 semester hours in the semester just completed and/or fail to meet the requirements for good academic standing for their major will be placed on academic probation.

## 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 the minimum required grade in the same course twice.
- For health science, pharmacy, and physical therapy students, failure to earn a grade of $C$ or better in three professional courses, regardless of remediation.

Within the health science program, lecture and clinical/ lab components for the same class are considered as one professional course failure.

Within the physical therapy and pharmacy programs, each specific professional course (with separate registration number) will be counted as a separate failure even if content is related.

- For nursing students, failure to earn a grade of $C$ or better in two professional and/or clinical courses, regardless of remediation. Within the nursing program, each specific professional course (with separate registration number) will be counted as a separate failure even if content is related.
- For physical therapy students, failure to achieve an overall GPA of 3.000 or higher or a science prerequisite GPA of 3.000 or higher by the end of the preprofessional phase of the program (summer 1, semester year two). In addition, failure to maintain the required overall 3.000 GPA at any point in the professional phase of the program.
- For nursing, physical therapy, and pharmacy students, changing the expected graduation date more than twice.
- The physical therapy and pharmacy programs monitor and promote the development of professional behaviors in their students in order to ensure appropriate professionalism in the classroom, local and global communities, and clinical settings. Breach of adherence to these standards may result in dismissal from the student's respective program.

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. If not moved into a new major by the end of two semesters, the student will be blocked from further registration.

## 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.

## Communication Sciences and Disorders

Website (http://www.northeastern.edu/bouve/csd)
Ennio Mingolla, PhD
Professor and Chair
226 Forsyth Building
617.373 .3698
617.373 .2239 (fax)

Karen O'Brien, Administrative Coordinator, ka.o'brien@northeastern.edu
(ka.obrien@northeastern.edu)

The Department of Communication Sciences and Disorders (CSD) offers two undergraduate minors.

These flexible minors allow students from various fields of study to enhance their academics with courses related to the field of communication sciences in general, as well as specific courses covering topics such as audiology or speech/language disorders across the lifespan. Advisors assist students minoring in this area with accommodating their interests, aptitudes, or graduate plans.

The minor in CSD includes courses that offer exposure to a variety of aspects of the CSD field. Students can go on to graduate programs in fields such as applied psychology, linguistics, neuroscience, and education, among others, but does not by itself prepare students for admission to graduate programs in speech-language pathology or audiology. Speech-language pathology and audiology courses are 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.

The minor in clinical speech-language pathology and audiology (SLPA) seeks to prepare students for admission into a graduate program in speech-language pathology or audiology. Speech-language pathologists and audiologists (which requires graduate education to practice) are involved with the evaluation and treatment of, and counseling and research in, human communication and its disorders. They 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.

## Communication Sciences and Disorders Minor

The CSD minor consists of one required foundation course taken prior to any core or elective courses, then two core courses and one elective from either the remaining core courses in the list or from a specified set of elective courses that are taught by units other than the Department of CSD. Students may consult with an advisor in the CSD department concerning the current listing of eligible elective courses for the CSD minor.

## Clinical Speech-Language Pathology and Audiology Minor

The clinical SLPA minor seeks to prepare students for admission into a graduate program in speech-language pathology or audiology (http:// catalog.northeastern.edu/graduate/health-sciences/communication-sciences-disorders). In particular, students in this minor are on a track that, if supplemented with certain elective choices within their major, would meet all admissions requirements for our department's own MS/SLP (http://catalog.northeastern.edu/graduate/health-sciences/ communication-sciences-disorders/speech-language-pathology-ms) and AuD (http://catalog.northeastern.edu/graduate/health-sciences/ communication-sciences-disorders/aud) programs.

Students pursuing this minor are advised to consult early and regularly with their academic advisors in order to ensure a timely completion of the combination of their major and the clinical SLPA minor requirements.

Students pursuing this minor who wish to go to graduate school at institutions other than Northeastern are advised to carefully check admissions requirements for those programs.

## Programs <br> Minors

- Communication Sciences and Disorders (p. 435)
- Speech-Language Pathology and Audiology (p. 436)


## Communication Sciences and Disorders, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Foundation Course

Complete one of the following:

| SLPA 1101 | Introduction to Communication <br> Disorders |
| :--- | :--- |
| SLPA 1555 | Communication Disorders in Movies |

## Communication Sciences and Disorders Core

| Complete two of the following: |  |
| :--- | :--- |
| SLPA 1102 | Language Development |
| SLPA 1103 | Anatomy and Physiology of Speech and <br> Hearing Mechanism |
| SLPA 1200 | Phonetics |
| SLPA 1203 | Introduction to Audiology |
| SLPA 1205 | Speech and Hearing Science |
| SLPA 4651 | Speech Disorders across the Life Span <br> SLPA 5110 |

## Elective

Complete at least one of the following. Additional courses
may be needed to complete a minimum of 15 SH for the minor.

| AMSL 1101 | Elementary ASL 1 |
| :--- | :--- |
| CAEP 3480 | Counseling Theories and Practice |
| COMM 1112 | Public Speaking |
| COMM 3201 | Health Communication |
| COMM 3230 | Interpersonal Communication |
| COMM 3534 | Group Communication |
| ENTR 2301 | Innovation! |
| HLTH 1510 | Introduction to Healthcare Ethics |
| HLTH 5005 | Introduction to Health and Aging |
| HLTH 5105 | Introduction to Early Intervention |
| HSCI 5300 | Patient-Centered Health Informatics |
| PHTH 2300 | Communication Skills for the Health <br> PHTH 2301Communication Skills for the Health <br> Professions-Global <br> PSYC 3450Learning and Motivation |

## Minor Credit Requirement

Minimum of 15 SH required in the minor

## GPA Requirement

2.000 GPA required in the minor

## Speech-Language Pathology and Audiology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Foundation Course

Complete one of the following:

| SLPA 1101 | Introduction to Communication <br> Disorders |
| :--- | :--- |
| SLPA 1555 | Communication Disorders in Movies |

Speech-Language Pathology and Audiology Core
Complete all of the following:

| SLPA 1102 | Language Development | $3-4$ |
| :--- | :--- | ---: |
| SLPA 1103 | Anatomy and Physiology of Speech and <br> Hearing Mechanism | $3-4$ |
| SLPA 1200 | Phonetics | $3-4$ |
| SLPA 1203 | Introduction to Audiology | $3-4$ |
| SLPA 1205 | Speech and Hearing Science | $3-4$ |

## GPA Requirement

2.000 GPA required in the minor

## Health Sciences

Website (http://www.northeastern.edu/bouve/health-sciences)
Carmen Sceppa, MD, PhD
Professor and Chair
316 Robinson Hall
617.373.3666
617.373 .2968 (fax)

Anthony DeFabrizio, Administrative Coordinator, a.defabrizio@northeastern.edu

The Department of Health Sciences offers a BS degree program in health science, a BS in health science/MPH (Master of Public Health), and minors in exercise science and in health science.

## Health Science

The health science major is designed to provide students with an integrated understanding of the natural and social sciences, critical reasoning, and the determinants of global and population health. The competencies that students acquire over their tenure in the Department of Health Sciences provide a solid foundation that prepares students to enter graduate and professional programs in medicine, dentistry, law, veterinary medicine, physician assistant, exercise science, social work, and public health. Health science students also distinguish themselves as particularly well prepared to enter the workforce in many health-related areas because they understand the critical importance of the context in which healthcare is delivered. Health science graduates can be found in leadership roles in various health-related organizations, including
hospitals, government and other public health agencies, communitybased organizations, and in the pharmaceutical and insurance industries.

The health science curriculum integrates learning in the natural sciences, social 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 take courses that introduce them to social determinants of health and wellness and to the ways in which healthcare systems and policies foster-or impede-health and wellness. Our curriculum offers students an opportunity to develop an understanding of public health, health policy and administration, quality-of-care improvement, research methods, and evidence-based healthcare. The curriculum includes electives designed to enrich students' intellectual lives and an opportunity to identify specific areas of interest. Students may use electives to explore a formal minor that complements their health science studies or take prerequisite courses for graduate programs. The entire academic experience culminates in a sequence of capstone courses during the senior year, intended to provide students with a structured opportunity to integrate the knowledge and skills acquired in prior courses, research, and experiential activities into a significant capstone project.

## BS in Health Science/MPH-Master of Public Health

The Department of Health Sciences offers a combined undergraduate BS in health science and a master of public health in urban health. This program allows undergraduate health science majors to complete both degrees in a shorter amount of time than it would take to do each program separately. Students in the combined degree program will meet the core curriculum requirements for both a BS and an MPH degree. Fifteen credits of the MPH degree are taken during the final undergraduate year, and the MPH degree is completed over one additional year.

Undergraduate students can enter the PlusOne Accelerated program (BS/ MPH) via two ways:

- Undergraduate health science majors apply to the PlusOne program through the graduate school's Apply Yourself system in the spring semester of their junior year.
- Those students who were offered conditional acceptance to the PlusOne program as part of their undergraduate acceptance automatically matriculate into the program if they maintain at least a 3.500 cumulative grade-point average, take a health-related co-op, and officially commit to this program in the spring semester of their junior year. No additional application is required.

Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Health Science Minor

The minor in health sciences is designed for undergraduate students from any discipline across the university who wish to expand and apply their understanding in key areas of public health. The minor is comprised of five courses, two of which are required (The American Healthcare System (PHTH 1260) and Community and Public Health (PHTH 2350)), to equal 20 semester hours in total. Health science faculty consult with students to assist with elective selections relevant to their interests.

## Exercise Science Minor

The minor in exercise science is for undergraduate students from any discipline wishing to expand their understanding in this area. Exercise science 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, and obesity. Through this minor, undergraduate students have an opportunity to broaden their understanding of exercise and physical activity in health promotion, disease prevention, and interventions. Students who elect a minor in exercise science may then apply to the MS in exercise science upon graduation.

## Programs

## Bachelor of Science (BS)

- Health Science, BS (p. 437)


## Dual Degree

- Health Science, BS/MPH (p. 438)


## Minors

- Health Science, Minor (p. 439)
- Exercise Science, Minor (p. 440)


## Health Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## YEAR 1

| PHTH 1260 or PHTH 1261 | The American Healthcare System Comparative Healthcare Systems | 4 |
| :---: | :---: | :---: |
| HSCI 1000 | College: An Introduction | 1 |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | 5 |
| BIOL 1113 and BIOL 1114 | General Biology 2 and Lab for BIOL 1113 | 5 |
| MATH 1241 | Calculus 1 | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Complete one of the following: |  | 5 |
| CHEM 1101 and CHEM 1102 | General Chemistry for Health Sciences and Lab for CHEM 1101 |  |
| CHEM 1211 <br> and CHEM 1212 <br> and CHEM 1213 | General Chemistry 1 and Lab for CHEM 1211 and Recitation for CHEM 1211 |  |
| Complete one of the following: |  | 5 |
| CHEM 1104 and CHEM 1105 | Organic Chemistry for Health Sciences and Lab for CHEM 1104 |  |
| CHEM 1214 <br> and CHEM 1215 <br> and CHEM 1216 | General Chemistry 2 and Lab for CHEM 1214 and Recitation for CHEM 1214 |  |
| ENGW 1111 | First-Year Writing (grade of C or higher is required) | 4 |

## YEAR 2

| PHTH 2350 | Community and Public Health | 4 |
| :---: | :---: | :---: |
| Complete one of the following: |  | 4 |
| PHTH 2210 and PHTH 2211 | Foundations of Biostatistics and Recitation for PHTH 2210 |  |
| MATH 2280 | Statistics and Software |  |
| Complete two of the following: |  | 10 |
| BIOL 1117 and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 |  |
| BIOL 1119 and BIOL 1120 | Integrated Anatomy and Physiology 2 and Lab for BIOL 1119 |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 (Organic Chemistry 1 and Lab for CHEM2311) |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 (Physics for the Life Science 1 and lab for PHYS1145) |  |
| PHYS 1147 and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 (Physics for the Life Science 2 and lab for PHYS1147) |  |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| BIOL 2321 and BIOL 2322 | Microbiology and Lab for BIOL 2321 |  |
| BIOL 2323 and BIOL 2324 | and |  |
| Complete one of the following: |  | 4 |
| HSCI 1105 | Nutrition |  |
| HSCI 1106 | Contemporary Issues in Nutrition |  |
| HSCI 1107 | Nutrition Service Learning |  |
| HSCI 2000 | Professional Development for Bouvé Co-op | 1 |

YEAR 3 (4-YEAR OPTION) OR YEARS 3 AND 4 (5-YEAR CO-OP OPTION)

| PHTH 2300 | Communication Skills for the Health <br> Professions |  |
| :---: | :--- | ---: |
| or PHTH 2301 | Communication Skills for the Health Professions- <br> Global |  |
| HLTH 5450 | Healthcare Research |  |
| PHIL 1165 | Moral and Social Problems in <br> Healthcare | 4 |
| ENGW 3306 | Advanced Writing in the Health <br> Professions | 4 |

## FINAL YEAR

$\left.\begin{array}{lll}\text { PHTH 4511 } \\ \text { or NRSG 4611 }\end{array} \quad \begin{array}{l}\text { Healthcare Management } \\ \text { Managing and Leading in Healthcare-An } \\ \text { International Perspective }\end{array}\right] 4$

Complete one of the following: 4
HSCI 4710 Health Science Capstone

| HSCI 4720 | Health Science Capstone-Service |
| :--- | :--- |
| HSCI 4730 | Health Science Capstone-Research |

## Electives

Complete ten general electives.
It is strongly recommended that preclinical students take the following course as one of their electives:

| HLTH 1200 | Basic Skills for the Healthcare |
| :--- | :--- |
| and HLTH 1201 | Professional <br> and Lab for HLTH 1200 |

## Health Science Major Grade Requirement

A grade of $C$ or higher is required in all health science courses (HLTH, HSCI , and PHTH subject areas).

## Program Requirement

135 total semester hours required

## Plan of Study

Five years, two co-ops

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PSYC 1101 | 4 BIOL 1113 | 4 Vacation | 0 Vacation | 0 |
| HSCI 1000 | 1 BIOL 1114 | 1 |  |  |
| BIOL 1111 | 4 CHEM 1214 | 4 |  |  |
| BIOL 1112 | 1 CHEM 1215 | 1 |  |  |
| MATH 1241 | 4 CHEM 1216 | 0 |  |  |
| CHEM 1211 | 4 ENGW 1111 | 4 |  |  |
| CHEM 1212 | 1 PHTH 1260 | 4 |  | 0 |
| CHEM 1213 | 0 |  | 0 |  |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHTH 2350 | 4 | HSCI 1105 | 4 Vacation | 0 Co-op | 0 |
| BIOL 1117 or CHEM 2311 | 4 | Elective | 4 |  |  |
| BIOL 1118 or CHEM 2312 |  | BIOL 1119 or CHEM 2313 | 4 |  |  |
| MATH 2280 | 4 | BIOL 1120 or / <br> CHEM 2314/ PHYS 1148/ BIOL 2302/23 | 1 |  |  |
| Elective | 4 | HLTH 1200 <br> (or elective) | 2 |  |  |
| HSCI 2000 | 1 | HLTH 1201 (or elective) | 1 |  |  |
|  | 18 |  | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHTH 2300 | 4 Vacation | 0 Vacation | 0 |
|  | ENGW 3306 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 1165 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HLTH 5450 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| PHTH 5120 | 3 HSCI 4720 or | 4 |
|  | 4730 |  |
| PHTH 5540 | 4 PHTH 4515 | 4 |
| Elective | 4 PHTH 4511 | 4 |
| Elective | 4 Elective | 4 |
| HSCI 4700 | 0 |  |
|  | 15 | 16 |

Total Hours: 134

## Health Science, BS/MPH

## BS in Health Science/MPH-Master of Public Health

The Department of Health Sciences offers a combined undergraduate BS in health science and a master of public health in urban health. This program allows undergraduate health science majors to complete both degrees in a shorter amount of time than it would take to do each program separately. Students in the combined degree program will meet the core curriculum requirements for both a BS and an MPH degree. Fifteen credits of the MPH degree are taken during the final undergraduate year, and the MPH degree is completed over one additional year.

Undergraduate students can enter the PlusOne Accelerated Master's (BS/
MPH) program via two ways:

- Undergraduate health science majors apply to the PlusOne program through the graduate school's Apply Yourself system in the spring semester of their junior year.
- Those students who were offered conditional acceptance into the PlusOne program as part of their undergraduate acceptance automatically matriculate into the program if they maintain at least a 3.500 cumulative GPA, take a health-related co-op, and officially commit in the spring semester of their junior year. No additional application is required through the graduate school.

Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| PHTH 1260 or PHTH 1261 | The American Healthcare System Comparative Healthcare Systems | 4 |
| :---: | :---: | :---: |
| HSCI 1000 | College: An Introduction | 1 |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | 5 |
| BIOL 1113 <br> and BIOL 1114 | General Biology 2 and Lab for BIOL 1113 | 5 |
| MATH 1241 | Calculus 1 | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Complete one of the following: |  | 5 |
| CHEM 1101 <br> and CHEM 1102 | General Chemistry for Health Sciences and Lab for CHEM 1101 |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 |  |
| Complete one of the following: |  | 5 |
| CHEM 1104 and CHEM 1105 | Organic Chemistry for Health Sciences and Lab for CHEM 1104 |  |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 |  |
| ENGW 1111 | First-Year Writing ((grade of C or higher is required)) | 4 |
| YEAR 2 |  |  |
| PHTH 2350 | Community and Public Health | 4 |
| Complete one of the following: |  | 4 |
| PHTH 2210 and PHTH 2211 | Foundations of Biostatistics and Recitation for PHTH 2210 |  |
| MATH 2280 | Statistics and Software |  |
| Complete two of the following: |  | 10 |
| BIOL 1117 <br> and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 |  |
| BIOL 1119 <br> and BIOL 1120 | Integrated Anatomy and Physiology 2 and Lab for BIOL 1119 |  |
| CHEM 2311 <br> and CHEM 2312 | Organic Chemistry 1 <br> and Lab for CHEM 2311 |  |
| CHEM 2313 <br> and CHEM 2314 | Organic Chemistry 2 <br> and Lab for CHEM 2313 |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1147 and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |  |
| BIOL 2321 <br> and BIOL 2322 | Microbiology <br> and Lab for BIOL 2321 |  |
| BIOL 2323 <br> and BIOL 2324 | and |  |
| Select one of the following: |  | 4 |
|  |  |  |


| HSCI 1106 | Contemporary Issues in Nutrition |  |
| :---: | :---: | :---: |
| HSCI 1107 | Nutrition Service Learning |  |
| HSCI 2000 | Professional Development for Bouvé Co-op | 1 |
| YEAR 3 (4-YEAR OPTION) OR YEARS 3 AND 4 (5-YEAR CO-OP OPTION) |  |  |
| PHTH 2300 | Communication Skills for the Health Professions | 4 |
| or PHTH 2301 | Communication Skills for the Health ProfessionsGlobal |  |
| HLTH 5450 | Healthcare Research | 4 |
| PHIL 1165 | Moral and Social Problems in Healthcare | 4 |
| ENGW 3306 | Advanced Writing in the Health Professions | 4 |
| FINAL YEAR |  |  |
| PHTH 5212 | Public Health Administration and Policy | 3 |
| PHTH 5540 | Health Education and Program Planning | 4 |
| HSCI 4700 | Health Science Capstone Introduction | 0 |
| Complete one of the following: |  |  |
| HSCI 4710 | Health Science Capstone |  |
| HSCI 4720 | Health Science Capstone-Service |  |
| HSCI 4730 | Health Science Capstone-Research |  |
| PHTH 6204 | Society, Behavior, and Health | 3 |
| PHTH 5120 | Race, Ethnicity, and Health in the United States | 3 |
| PHTH 5212 | Public Health Administration and Policy | 3 |
| PHTH 6200 | Principles and History of Urban Health | 3 |
| Complete one of the following: 3 or 4 |  |  |
| PHTH 5202 | Epidemiology |  |
| PHTH 5210 | Biostatistics in Public Health |  |
| PHTH 5214 | Environmental Health |  |
| PHTH 6208 | Urban Community Health Assessment |  |

## Electives

Complete eight general electives.
It is strongly recommended that preclinical students take the following course as one of their electives:

| HLTH 1200 | Basic Skills for the Healthcare |
| :--- | :--- |
| and HLTH 1201 | Professional <br> and Lab for HLTH 1200 |

## Health Science Major Grade Requirement

A grade of $C$ or higher is required in all health science courses (HLTH, HSCI, and PHTH subject areas).

## Program Requirement

135 total semester hours required
Minimum 3.000 GPA required in all graduate courses

## Health Science, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| PHTH 1260 | The American Healthcare System | 4 |
| :---: | :---: | :---: |
| PHTH 2350 | Community and Public Health | 4 |
| Elective Courses |  |  |
| Complete three of the following: |  | 9-12 |
| EXSC 1120 | Introduction to Exercise, Fitness, and Health |  |
| HSCI 1106 | Contemporary Issues in Nutrition |  |
| HSCI 5230 | Clinical Nutrition Applications in Health and Disease |  |
| PHTH 1120 | Society and Health |  |
| PHTH 2300 | Communication Skills for the Health Professions |  |
| HLTH 5450 | Healthcare Research |  |
| HLTH 5280 | The (in)Visibility of (dis)Ability in Society |  |
| PHTH 4511 | Healthcare Management |  |
| HSCI 5300 | Patient-Centered Health Informatics |  |
| PHTH 4515 | Health Policy: Public Health in Crisis |  |
| PHTH 5120 | Race, Ethnicity, and Health in the United States |  |
| PHTH 5202 | Epidemiology |  |
| PHTH 5228 | Advances in Measuring Behavior |  |
| PHTH 5230 | Global Health |  |
| PHTH 5232 | Evaluating Healthcare Quality |  |
| PHTH 5234 | Economic Perspectives on Health Policy |  |
| PHTH 5240 | Evaluating Scientific Evidence |  |
| PHTH 5280 | Food, Food Policy, and Health |  |
| PHTH 5440 | Community-Based Participatory Research: Environmental Health |  |

## GPA Requirement

2.000 GPA required in the minor

## Exercise Science, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Exercise Science Requirements

A minimum grade of C is required in all courses taken toward the minor.

## Required Courses

BIOL 1117
and BIOL 1118
BIOL 1119
and BIOL 1120
EXSC 4500
and EXSC 4501

## Focus

Complete either the cardiovascular focus (open to all students) or the musculoskeletal focus (open to physical therapy students only): and Lab for BIOL 1117 Integrated Anatomy and Physiology 2 and Lab for BIOL 1119
Exercise Physiology 1 and Lab for EXSC 4500

| EXSC 5200 | Cardiopulmonary Physiology | 3 |
| :--- | :--- | ---: |
| EXSC 5220 | Advanced Exercise Physiology |  |
| Musculoskeletal Focus-Open to Physical Therapy Students <br> Only | 3 |  |
| EXSC 5230 | Physical Activity and Exercise: Effects <br> on Musculoskeletal Health and Disease | 3 |
| PT 5133 Kinesiology <br> and Lab for PT 5133 4 |  |  |

## GPA Requirement

2.000 GPA required in the minor

## Interdisciplinary

## Programs

## Minor

Early Intervention, Minor (p. 440)

## Early Intervention, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| CAEP 5150 | Early Intervention: Family Systems | 3 |
| :--- | :--- | ---: |
| CAEP 5151 | Early Intervention: Infant and Toddler <br> Development, Risk, and Disability | 3 |
| CAEP 5152 | Early Intervention: Planning and <br> Evaluating Services | 3 |
| CAEP 8425 | Early Intervention Practicum 1 | 2 |
| CAEP 8426 | Early Intervention Practicum 2 | 2 |
| SLPA 6335 | Early Intervention: Assessment and | 3 |

## GPA Requirement

2.000 GPA required in the minor

## Physical Therapy, Movement, and Rehabilitation Sciences

Website (http://www.northeastern.edu/bouve/physical-therapy)
Maura Daly Iversen, PT, DPT, SD, MPH, FNAP, FAPTA
Professor and Chair
301 Robinson Hall
617.373 .3908

Cardiovascular Focus-Open to All Students
and international humanitarian opportunities. Through this unique, multifaceted approach to learning we:

- Educate skilled, autonomous doctors of physical therapy who embrace evidence-based practice, are culturally competent, and are equipped to work in a complex global healthcare environment
- Promote professionalism, humanistic values, resourcefulness and innovation, and a commitment to lifelong learning
- Advance scholarship in areas related to physical therapist education and clinical practice to meet the changing needs of a global and technologically advancing world


## Features of the Doctor of Physical Therapy Program

The program in physical therapy has three admission points: freshman, change of major, or as a graduate student with a baccalaureate degree in any field. The duration of the program is six years for freshman entry and three and one-half years for transfer or postbaccalaureate entry. The terminal degree is the Doctor of Physical Therapy (DPT). Our entrylevel Doctor of Physical Therapy program is one of the few freshman entry programs in the country. Undergraduate students earn a BS in rehabilitation science and progress into the Doctor of Physical Therapy phase of the program. Students do not need to reapply to the DPT phase of the program, provided they meet the academic standards.

## Emphasis on Experiential Learning

Our DPT program provides freshman-entry students with one year of experiential learning (six months for graduate-entry students) in addition to the required clinical affiliations necessary for licensure. Through cooperative education, the hallmark of Northeastern University, students are able to integrate semesters of academic study with semesters of cooperative education experiences in hospitals and clinics throughout the country and around the globe. Students may be employed as physical therapy co-ops with increasing responsibilities commensurate with their academic studies or perform other health-related duties.

The curriculum also includes thirty-six weeks of clinical education under the direct supervision of a licensed physical therapist. We are affiliated with world-class medical centers and clinical sites throughout the United States, providing students with access to master clinicians and clinical scholars. Every effort is made to accommodate individual circumstances, but students should be prepared to travel out of state for two of the three clinical placements. Availability of a car is 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.

## Student Research

Physical therapy students participate in research that is integrated into the curriculum. Students have the opportunity to work with faculty to conduct ongoing research in world-renowned medical centers, in one of the twelve Department of Physical Therapy, Movement, and Rehabilitation Science's labs and centers (e.g., Neuromotor Systems Lab, Lab for Locomotion Research, Cancer Survivorship Center, The ReGameVR Lab, Movement Neuroscience Lab, Rehabilitation and Epidemiology Trainee Program, Occupational Biomechanics and Ergonomics Lab, Neurophysiology Lab, Teaching and Learning Innovation Lab, Musculoskeletal Epidemiology and Biomechanics Lab, Cadaver Lab, and Neuroscience Wet Lab). The outcome is the ability to conduct and present quality research at local- and/or national-level conferences.

## Global Outreach

Students have multiple opportunities to enrich their education through global outreach and education. Physical therapy students can elect
to do a traditional semester-long study abroad, a one-month Dialogue of Civilization, or to go abroad for a cooperative education experience. To date, physical therapy students have worked in Nepal, Peru, Costa Rica, and South Africa for their cooperative education experience. In the latter portion of the curriculum, students can participate in short cultural immersion experiences abroad whereby they engage in community service projects under the direction of a physical therapy faculty member or on physical therapy academic exchanges with partner academic institutions.

## Ability to Minor in Another Field

Physical therapy undergraduate students work with their academic advisor to develop a schedule to complete a minor in another field such as psychology, exercise science, or a foreign language.

## Ability to Concentrate

Once in the program, students may have the ability to acquire additional information in two areas of concentration. The Certificate in Early Intervention (http://catalog.northeastern.edu/graduate/health-sciences/applied-psychology/early-intervention-graduate-certificate/ \#programrequirementstext) is an interprofessional program that meets the state and national requirements for personnel to work with families, infants, and toddlers with disabilities or who are at risk for developmental delays. The Concentration in Sports Strength and Conditioning prepares the physical therapy student to confidently pursue a sports physical therapy position working with athletes of all ages in a variety of settings. In both areas, students take additional course work, focused on research and clinical rotations that expand upon the entry-level physical therapy curriculum.

## Progression in the Program

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 behaviors, 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.

## Bachelor of Science in Rehabilitation Studies

The Department of Physical Therapy, Movement, and Rehabilitation Sciences offers a four-year degree program leading to the Bachelor of Science in Rehabilitation Studies (BSRS). The program is designed to prepare students for careers in entry-level positions in the healthcare industry or to prepare graduates for admission into advanced degree (MS, PhD, PA, DPT) programs in the healthcare field. The BSRS does not qualify or prepare the graduate to sit for the physical therapy licensure exam. This program is open to students already enrolled in the Doctorate of Physical Therapy (DPT) program at Northeastern University who choose to opt out of pursuing licensure for direct patient care in the practice of physical therapy for a future career that is grounded in healthcare. The transition of a student from the DPT program to the BSRS program is seamless because the course work for the first three years of the six-year DPT curriculum is identical to the BSRS curriculum. See "Changing Majors (p. 29)" for more information.

## Programs

Bachelor of Science

- Rehabilitation Studies (p. 442)


## Doctor of Physical Therapy, DPT

- Physical Therapy (p. 443)


## Rehabilitation Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
The NUpath requirement Differences and Diversity (DD) is not explicitly satisfied by required courses. Students are responsible for satisfying this requirement with an Open Elective.

## YEAR 1

| PT 1000 | College: An Introduction | 1 |
| :--- | :--- | :---: |
| MATH 1241 | Calculus 1 | 4 |
| PSYC 1101 | Foundations of Psychology |  |
| PSYC 3404 | Developmental Psychology |  |
| CHEM 1101 |  |  |
| and CHEM 1102 <br> and CHEM 1103 | General Chemistry for Health Sciences <br> and Lab for CHEM 1101 <br> and Recitation for CHEM 1101 | 4 |
| CHEM 1104 <br> and CHEM 1105 <br> and CHEM 1106 | Organic Chemistry for Health Sciences <br> and Lab for CHEM 1104 <br> and Recitation for CHEM 1104 | 5 |
| ENGW 1111 | First-Year Writing (a grade of C or <br> higher is required) | 5 |
| Complete two Open Electives |  |  |


| YEAR 2 |  |  |
| :--- | :--- | :--- |
| PT 2000 | Professional Development Co-op |  |


| BIOL 1117 | Integrated Anatomy and Physiology 1 <br> and BIOL 1118 | and Lab for BIOL 1117 |
| :--- | :--- | :--- |

and BIOL 1120
PHYS 1145
and PHYS 1146
PHYS 1147
and PHYS 1148
$\begin{array}{lll}\text { MATH } 2280 & \text { Statistics and Software } & 4 \\ \text { PT } 5101 & \text { Foundations of Physical Therapy }\end{array}$

| PT 5101 | Foundations of Physical Therapy | 4 |
| :--- | :--- | :--- |
| and PT 5102 | and Lab for PT 5101 |  |

ENGW $3306 \quad$| Advanced Writing in the Health |
| :--- |
| Professions (a grade of C or higher |
| required) |

| Complete three Open Electives | 12 |
| :--- | :---: |
| Cooperative Education: |  |
| COOP 3945 | Co-op Work Experience |
| YEAR 3 |  |
| PT 5145 | Introduction to the Healthcare System |


| PT 5131 and PT 5132 | Gross Anatomy and Lab for PT 5131 | 5 |
| :---: | :---: | :---: |
| PT 5133 and PT 5134 | Kinesiology and Lab for PT 5133 | 4 |
| PT 5160 and PT 5161 | Psychosocial Aspects of Healthcare and Psychosocial Aspects of Healthcare Seminar | 4 |
| EXSC 4500 | Exercise Physiology 1 | 4 |
| PT 5140 and PT 5141 | Pathology and Recitation for PT 5140 | 4 |
| PT 5138 and PT 5139 | Neuroscience and Lab for PT 5138 | 5 |
| HLTH 5450 and HLTH 5451 | Healthcare Research and Recitation for HLTH 5450 | 4 |
| YEAR 4 |  |  |
| PT 5227 | Physical Therapy Project 1 | 3 |
| PHSC 4340 | Pharmacology for the Health Professions | 4 |
| PT 5150 and PT 5151 | Motor Control, Development, and Learning and Lab for PT 5150 | 5 |
| Complete one Open Elective |  | 4 |

## Program Requirement

128 total semester hours required

## Plan of Study

## Four Years, One Co-op

Year 1


| Year 2 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer Hours 1 |  | Summer Hours 2 |  |
| MATH 2280 | 04 | Elective | 4 | ENGW 3306 | 4 | Co-op | 0 |
| BIOL 11 | 4 | BIOL 11 | 4 | Elective | 4 |  |  |
| BIOL 1118 | 1 | BIOL 1120 | 01 |  |  |  |  |
| PHYS 1 | 4 | PHYS $1{ }^{\circ}$ | 4 |  |  |  |  |
| PHYS 1146 | $\bigcirc 1$ | PHYS 1148 | 48 |  |  |  |  |
| Elective | 4 | PT 200C | 1 |  |  |  |  |
|  |  | PT 5101 | 3 |  |  |  |  |
|  |  | PT 5102 | 1 |  |  |  |  |
|  | 18 |  | 19 |  | 8 |  | 0 |

Year 3
Fall Hours Spring Hours Summer Hours Full
Semester
PT 5140

| PT 5131 | 4 | PT 5141 | 0 |
| :---: | :---: | :---: | :---: |
| PT 5132 | 1 | PT 5133 | 3 |
| EXSC 4! | 4 | PT 5134 | 1 |
| PT 5160 | 3 | PT 5145 | 2 |
| PT 5161 | 1 | PT 5138 | 4 |
|  |  | PT 5139 | 1 |
| 0 | 17 |  | 15 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| PT 5227 | 3 Elective | 4 |
| PT 515C | 4 Elective | 4 |
| PT 5151 | 1 |  |
| PHSC 4: | 4 |  |
| Elective | 4 | 8 |
|  | 16 |  |

Total Hours: 136

## Physical Therapy, DPT

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
The NUpath requirement Differences and Diversity (DD) is not explicitly satisfied by required courses. Students are responsible for satisfying this requirement with an Open Elective.

## YEAR 1

| PT 1000 | College: An Introduction | 1 |
| :---: | :---: | :---: |
| MATH 1241 | Calculus 1 | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 3404 | Developmental Psychology | 4 |
| CHEM 1101 <br> and CHEM 1102 <br> and CHEM 1103 | General Chemistry for Health Sciences and Lab for CHEM 1101 and Recitation for CHEM 1101 | 5 |
| CHEM 1104 <br> and CHEM 1105 <br> and CHEM 1106 | Organic Chemistry for Health Sciences and Lab for CHEM 1104 and Recitation for CHEM 1104 | 5 |
| ENGW 1111 | First-Year Writing | 4 |
| Complete two Open Electives |  | 8 |
| YEAR 2 |  |  |
| PT 2000 | Professional Development Co-op | 1 |
| BIOL 1117 and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 | 5 |
| BIOL 1119 and BIOL 1120 | Integrated Anatomy and Physiology 2 and Lab for BIOL 1119 | 5 |


| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 | 5 |
| :---: | :---: | :---: |
| PHYS 1147 <br> and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 | 5 |
| MATH 2280 | Statistics and Software | 4 |
| PT 5101 and PT 5102 | Foundations of Physical Therapy and Lab for PT 5101 | 4 |
| ENGW 3306 | Advanced Writing in the Health Professions (a grade of C or higher required) | 4 |
| Complete three Open Electives |  | 12 |
| Progression Requirement for the Professional Phase: |  |  |
| A 3.000 GPA and 3.000 science pre-requisite GPA is required at the end of Summer 1 of second year to progress into professional phase of the program.. |  |  |

## Minor Requirement:

Students must declare and successfully complete a minor or minor equivalent as part of their program of study.

## YEAR 3

| COOP 3945 | Co-op Work Experience | 0 |
| :--- | :--- | :--- |
| PT 5145 | Introduction to the Healthcare System | 2 |
| PT 5131 | Gross Anatomy | 5 |


| and PT 5132 | and Lab for PT 5131 | 4 |
| :--- | :--- | :--- |
| PT 5133 | Kinesiology | 4 |


| and PT 5134 | and Lab for PT 5133 |
| :--- | :--- |
| PT 5160 | Psychosocial Aspects of Healthcare |

and PT $5161 \quad$ and Psychosocial Aspects of

| EXSC 4500 | Exercise Physiology 1 | 4 |
| :--- | :--- | :--- |
| PT 5140 | Pathology | 4 |


| and PT 5141 | and Recitation for PT 5140 |  |
| :--- | :--- | :--- |
| PT 5138 | Neuroscience | 5 |


| and PT 5139 | and Lab for PT 5138 |  |
| :--- | :--- | :--- |
| HLTH 5450 | Healthcare Research | 4 |

and HLTH 5451 and Recitation for HLTH 5450

| YEAR 4 |  |  |
| :--- | :--- | :--- |
| PT 5503 | Cardiovascular and Pulmonary |  |


| and PT 5504 | Management <br> and Lab for PT 5503 |
| :--- | :--- |
| PT 5515 | Integumentary Systems and Advanced |


| and PT 5516 | Modalities <br> and Lab for PT 5515 |
| :--- | :--- |
| PT 5540 | Clinical Integration 1: Evidence and |


|  | Practice |  |
| :--- | :--- | :--- |
| PT 5500 | Pharmacology for Physical Therapy | 4 |
| PT 5150 | Motor Control, Development, and | 5 |

and PT $5151 \quad$| Learning |  |
| :--- | :--- |
|  | and Lab for PT 5150 |

PT 6243 Health Education, Promotion, and 3
and PT 6244 Wellness
and Recitation for PT 6243
COOP 3945 Co-op Work Experience 0
Complete one Open Elective ..... 4
YEAR 5
PT 5227 Physical Therapy Project 1 3
PT 5209 Neurological Rehabilitation $1 \quad 5$
and Lab for PT 5209

| PT 6221 and PT 6222 | Neurological Rehabilitation 2 and Lab for PT 6221 | 5 |
| :---: | :---: | :---: |
| PT 5229 | Physical Therapy Project 2 | 2 |
| PT 5226 | Physical Therapy Professional Seminar 2 | 2 |
| PT 5230 | Pediatric and Geriatric Aspects of Life Span Management | 3 |
| PT 5505 and PT 5506 | Musculoskeletal Management 1 and Lab for PT 5505 | 5 |
| PT 6223 and PT 6224 | Musculoskeletal Management 2 and Lab for PT 6223 | 5 |
| PT 6241 | Screening for Medical Conditions in Physical Therapy Practice | 4 |
| PT 6000 | Leadership, Administration, and Management | 2 |
| PT 6441 | Clinical Education 1 (Summer) | 6 |
| PT 6215 and PT 6216 | Assistive Technology and Lab for PT 6215 (Summer) | 4 |
| PT 6250 | Clinical Integration 2: Evidence and Practice (Summer) | 2 |
| During Summ PT 6231 to P | plete one course in the following range: | 4 |


| YEAR 6 |  | 6 |
| :--- | :--- | :--- |
| PT 6442 | Clinical Education 2 | 9 |
| PT 6448 | Clinical Education 3 | 3 |
| PT 6251 | Diagnostic Imaging |  |

## Physical Therapy Major Grade/GPA Requirement

A grade of $C$ or higher is required in all courses in the PT, HLTH, or EXSC subject areas

Minimum 3.000 overall GPA required

## Program Requirements

206 total semester hours required
Minimum 3.000 GPA required

## Plan of Study

Six Years, Two Co-ops
Year 1

| Fall Ho | Hours | Spring Ho | Hours | Summer $1$ | Hours | s Summer <br> 2 | Hours |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PSYC 1101 | 14 | PSYC 3404 | 4 | Vacation | 0 | 0 Vacation | 0 |  |
| CHEM 1 | 4 | CHEM 1 | 4 |  |  |  |  |  |
| CHEM 1102 | 021 | CHEM 1105 | 51 |  |  |  |  |  |
| CHEM 1 | 0 | CHEM 1 | 0 |  |  |  |  |  |
| MATH 1241 |  | Minor course or Elective | 4 |  |  |  |  |  |
| PT 100C |  | Minor course or Elective | 4 |  |  |  |  |  |
| ENGW 1111 | 114 |  |  |  |  |  |  |  |
|  | 18 | - | 17 |  | 0 | 0 | 0 |  |



## Year 4



Year 5
$\left.\begin{array}{llcll}\text { Fall } & \text { Hours Spring } & \begin{array}{c}\text { Hours Summer } \\ \mathbf{1}\end{array} & \begin{array}{c}\text { Hours Summer }\end{array} & \begin{array}{l}\mathbf{2}\end{array} \\ \hline \text { PT 6241 } & 4 \text { PT 6221 } & 4 \text { PT 6441 } & \begin{array}{l}6 \text { PT } \\ \text { advanced } \\ \text { topics } \\ \text { course }\end{array} & 2\end{array}\right]$

| PT 5227 | 3 PT 5230 | 3 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 19 | 17 | 6 | 8 |
| Year 6 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| PT 6442 | 6 PT 6448 | 9 |  |  |
| PT 6251 | 3 |  |  |  |
|  | 9 | 9 |  |  |
| Total Hours: 206 |  |  |  |  |

## School of Nursing

Website (http://www.northeastern.edu/bouve/nursing)
Nancy P. Hanrahan, PhD, RN, CS, FAAN
Professor and Dean

## Ann Polcari, PhD, PMHCNS-BC

Associate Clinical Professor and Assistant Dean of Undergraduate Programs

## Janet S. Rico, PhD, MBA, FNP

Associate Clinical Professor and Assistant Dean for Graduate Education

## Office of the Dean

102 Robinson Hall
617.373.3649
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Undergraduate Program Office
102 Robinson Hall
617.373.6083

Lolita Hampton-Frisby, Administrative Coordinator, I.hamptonfrisby@northeastern.edu

The School of Nursing offers a Bachelor of Science and an Accelerated Bachelor of Science (ABSN) in nursing programs designed to prepare students to become professional nurses by providing them with the knowledge, skills, and professional values needed for successful practice in a variety of healthcare settings. 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.

The mission of the Northeastern University School of Nursing is to educate our students to provide evidence-based, culturally and linguistically competent, ethical healthcare that is high quality, safe, and accessible to diverse local, national, and global communities. Our programs seek to prepare students to become leaders as nurse clinicians, educators, scholars, and researchers.

Nursing is both a science-based profession and a caring art. The curriculum draws on basic and behavioral sciences, the arts and humanities, and the art and science of nursing to help students understand the complexities of health and illness across the life span.

The goal of the School of Nursing is to prepare students to think critically and to practice nursing competently and compassionately in rapidly changing practice environments. All efforts are designed to build nursing knowledge, enhance nursing practice and patient safety, foster professional integrity, and ultimately improve the health outcomes of patients, families, and communities across the continuum of care. This approach requires knowledge, skills, and attitudes that demonstrate leadership, quality care, critical thinking and clinical reasoning, cultural
and linguistic competence, interprofessional collaboration, evidencebased practice, and integration of informatics and technology.

The clinical program takes place in the community where people live as well as 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. Numerous community and institutional healthcare agencies in Greater Boston and across the country offer students an opportunity to gain experience in providing nursing care to a variety of patients and families and to understand that nurses have major roles in wellness and health promotion, acute care, and long-term care. Students in the program are strongly encouraged to participate in research activity and in global educational opportunities that can all be a part of the program.

The program is accredited by the Commission on Collegiate Nursing Education (CCNE) 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 of Nursing has been designated as a National League for Nursing Center of Excellence in Nursing Education for its commitment to creating environments that enhance student learning and professional development. The School of Nursing has also been designated as a National Hartford Center of Gerontological Nursing Excellence for its contributions in the area of geriatric nursing and research. The school subscribes to the standards established by the American Association of Colleges of Nursing (AACN), of which it is a member.

## Special Requirements

All students must receive a health clearance from University Health and Counseling Services (UHCS). Health clearance is based on specific documentation of immunity from infectious disease and a physical examination (this may be done by the student's own healthcare provider). In addition, nursing students need a clinical clearance in order to participate in clinical courses. Clinical clearance, managed by the School of Nursing's Clinical Placement Office, includes verification of certification in cardiopulmonary resuscitation (CPR); recent negative tuberculosis screening (PPD); positive titres for MMR, varicella, and hepatitis $B$; vaccines including TDAP and influenza; 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.

Clinical settings also require us to run a criminal background check. Additionally, international students require curricular practical training (CPT) clearance to meet federal requirements for all clinical and co-op experiences.

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 to their clinical site and in some clinical laboratory areas. Students are responsible for purchasing these uniforms, badges, and a lab supply pack.

In Massachusetts, and several other states, the registering board requires that graduates taking the National Council Licensing Examination
(NCLEX-RN) meet standards of "good moral character" (GMC). Students may review the GMC requirement specified at Massachusetts General Laws Chapter 112, sections 74, 74A, and 76; Licensure Policy No. 00-01 under "Rules \& Regulations" on the Massachusetts BORN website; or they can similarly investigate the requirements in the state where they expect to practice.

## RN to BSN Hybrid Option

The Bouvé College of Health Sciences School of Nursing allows qualified individuals to take the next step in their career toward becoming a baccalaureate-prepared registered nurse. The RN to BSN program offers a comprehensive clinical curriculum where students are exposed to all nursing specialties and aspects of nursing leadership. Program participation may be completed on a part-time or a full-time basis depending on preference. For more information, contact the School of Nursing program call center at 888.206.6004.

## Accelerated BSN for Second-Degree Students

The Accelerated Bachelor of Science in Nursing (ABSN) hybrid program, which comprises sixteen months of full-time study, combines online didactic course work and hands-on learning involving both clinical placements and experience in the skills laboratory. The program offers students an opportunity to work closely with nursing faculty to master the core skills necessary to excel in their nursing career. The program also seeks to prepare students to successfully take and pass the National Council Licensure Examination for Registered Nurses (NCLEXRN) and earn an RN license.

The ABSN curriculum includes 67 credits of undergraduate courses with online learning modules incorporating lectures and learning activities. The majority of these credits are completed online through an e-learning platform that allows students to listen to lectures, submit assignments, complete interactive learning modules, and engage in discussion with faculty and classmates.

The Bouvé College of Health Sciences School of Nursing has an extensive network of clinical affiliations at health centers, major teaching hospitals, and community hospitals that allow students to engage in clinical experiences covering a wide range of nursing specialties that include adult health, OB-GYN, pediatrics, behavioral and mental health, acute care, public health, health education, and management/leadership.

## Programs

Bachelor of Science in Nursing (BSN)

- Nursing (p. 446)
- Accelerated Program for Second-Degree Students (p. 448)


## Nursing, BSN

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p.34).

## CORE TERM 1

| NRSG 1000 | College: An Introduction | 1 |
| :--- | :--- | :--- |
| HSCI 1105 | Nutrition | 4 |
| BIOL 1117 <br> and BIOL 1118 | Integrated Anatomy and Physiology 1  <br> CHEM 1101 and Lab for BIOL 1117 | 5 |
| and CHEM 1102 | General Chemistry for Health Sciences <br> and Lab for CHEM 1101 | 5 |
| Complete one of the following: | 4 |  |


| MATH 1215 | Mathematical Thinking |  |
| :---: | :---: | :---: |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| CORE TERM 2 |  |  |
| BIOL 1121 and BIOL 1122 | Basic Microbiology and Lab for BIOL 1121 | 5 |
| BIOL 1119 and BIOL 1120 | Integrated Anatomy and Physiology 2 and Lab for BIOL 1119 | 5 |
| PSYC 1101 | Foundations of Psychology | 4 |
| ENGW 1111 | First-Year Writing | 4 |

## CLINICAL TERM 1

| NRSG 2210 | Influences on Health and Illness: A Nursing Perspective | 3 |
| :---: | :---: | :---: |
| NRSG 2220 and NRSG 2221 | Nursing Interventions, Assessment, and Community Care and Lab for NRSG 2220 | 5 |
| NRSG 2312 | Pathophysiology | 4 |
| PHSC 4340 | Pharmacology for the Health Professions | 4 |
| NRSG 2000 | Professional Development for Co-op | 1 |
| CLINICAL TERM 2 |  |  |
| NRSG 3323 and NRSG 3324 | Intermediate Interventions and Assessment and Lab for NRSG 3323 | 2 |
| NRSG 3320 and NRSG 3321 | Nursing Care of Adults 1 and Clinical for NRSG 3320 | 6 |
| NRSG 3302 and NRSG 3303 | Nursing with Women and Families and Clinical for NRSG 3302 | 5 |
| CLINICAL TERM 3 |  |  |
| NRSG 3420 and NRSG 3421 | Nursing Care of Adults 2 and Clinical for NRSG 3420 | 6 |
| NRSG 3400 and NRSG 3401 | Nursing and the Promotion of Mental Health and Clinical for NRSG 3400 | 5 |

## CLINICAL TERM 4

NRSG 4502
and NRSG 4503
NRSG 4604
and NRSG 4605
Nursing Care of the Child

CLINICAL TERM 5

| NRSG 4995 | Comprehensive Nursing Practicum | 5 |
| :--- | :--- | :--- |
| NRSG 4610 | Managing and Leading in Healthcare | 4 |
| PHIL 1165 | Moral and Social Problems in |  |
|  | Healthcare |  |
| HLTH 5450 | Healthcare Research | 4 |

## Nursing Breadth Courses

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| PSYC 3404 | Developmental Psychology | 4 |
| NRSG 5120 | Statistics for Health Science | 3 |
| ENGW 3306 | Advanced Writing in the Health <br> Professions (a grade of C or higher <br> required) | 4 |

## Nursing Electives

Complete three courses outside nursing or from the following

| NRSG 1205 | Wellness |
| :--- | :--- |
| NRSG 1206 | Wellness Abroad |
| NRSG 4992 | Directed Study |
| NRSG 4993 | Independent Study |
| NRSG 5000 | Advanced Perspectives in Wellness |
| NRSG 4970 | Junior/Senior Honors Project 1 |
| or NRSG 4971 | Junior/Senior Honors Project 2 |

## Program Requirements

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 1 BIOL 1121 | 4 | Vacation | 0 Vacation |$\quad 0$


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | NRSG 4604 | 3 Vacation | 0 Co-op | 0 |
|  |  | NRSG 4605 | 2 |  |  |
|  |  | NRSG 3420 | 4 |  |  |
|  |  | NRSG 3421 | 2 |  |  |
|  |  | NRSG 5120 | 3 |  |  |
|  | 0 |  | 14 | 0 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | NRSG 4502 | 4 ENGW 3306 | 4 Co-op | 0 |
|  |  | NRSG 4503 | 2 Elective | 4 |  |
|  |  | Elective | 4 |  |  |
|  |  | HLTH 5450 | 4 |  |  |
|  | 0 |  | 14 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | NRSG 4995 | 5 |
|  | NRSG 4610 | 4 |
|  | PHIL 1165 | 4 |
|  | Elective | 4 |
|  | 0 | 17 |

Total Hours: 133

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BIOL 1117 | 4 BIOL 1121 | 4 | Vacation | 0 Vacation |$\quad 0$

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| NRSG 2220 | 4 Co-op | 0 Co-op | 0 PSYC 3404 | 4 |
| NRSG 2221 | 1 |  | NRSG 3302 | 3 |
| PHSC 4340 | 4 |  | NRSG 3303 | 2 |
| NRSG 2210 | 3 |  |  |  |
| NRSG 2312 | 4 |  |  |  |
| NRSG 2000 | 1 |  | 0 | 9 |
|  | 17 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 1101 | 4 Co-op | 0 Co-op | 0 NRSG 4604 | 3 |
| NRSG 3320 | 4 |  | NRSG 4605 | 2 |
| NRSG 3321 | 2 |  | Elective | 4 |
| NRSG 3400 | 3 |  |  |  |
| NRSG 3401 | 2 |  |  |  |


| NRSG 3323 | 1 |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| NRSG 3324 | 1 | 0 | 0 | 9 |
| Year 4 | 17 |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| NRSG 3420 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| NRSG 3421 | 2 |  |  |  |
| NRSG 5120 | 3 |  |  |  |
| ENGW 3306 | 4 |  |  |  |
|  | 13 |  |  |  |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| NRSG 4502 | 4 NRSG 4610 | 4 |  |  |
| NRSG 4503 | 2 NRSG 4995 | 5 |  |  |
| HLTH 5450 | 4 PHIL 1165 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |

Total Hours: 133

Nursing (BSN), Accelerated Program for Second-Degree Students

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| SEMESTER 1 |  |  |
| :---: | :---: | :---: |
| NRSG 2210 | Influences on Health and Illness: A Nursing Perspective | 3 |
| NRSG 2220 and NRSG 2221 | Nursing Interventions, Assessment, and Community Care and Lab for NRSG 2220 | 5 |
| NRSG 2312 | Pathophysiology | 4 |
| NRSG 3302 and NRSG 3303 | Nursing with Women and Families and Clinical for NRSG 3302 | 5 |
| HLTH 5450 | Healthcare Research | 4 |
| SEMESTER 2 |  |  |
| PHSC 4340 | Pharmacology for the Health Professions | 4 |
| NRSG 3320 and NRSG 3321 | Nursing Care of Adults 1 and Clinical for NRSG 3320 | 6 |
| NRSG 3400 and NRSG 3401 | Nursing and the Promotion of Mental Health and Clinical for NRSG 3400 | 5 |


| NRSG 3323 and NRSG 3324 | Intermediate Interventions and Assessment and Lab for NRSG 3323 | 2 |
| :---: | :---: | :---: |
| SEMESTER 3 |  |  |
| NRSG 3420 and NRSG 3421 | Nursing Care of Adults 2 and Clinical for NRSG 3420 | 6 |
| NRSG 4502 and NRSG 4503 | Nursing Care of the Child and Clinical for NRSG 4502 | 6 |
| NRSG 4610 | Managing and Leading in Healthcare | 4 |
| SEMESTER 4 |  |  |
| NRSG 4995 | Comprehensive Nursing Practicum | 5 |
| NRSG 4604 and NRSG 4605 | Public Health Community Nursing and Clinical for NRSG 4604 | 5 |
| NRSG 6306 | Health Informatics | 3 |

## Program Requirement

67 total semester hours required

## School of Pharmacy

Website (http://www.northeastern.edu/bouve/pharmacy)
David P. Zgarrick, PhD, FAPhA, RPh
Professor and Acting Dean
Jenny A. Van Amburgh, PharmD, RPh, FAPhA, FNAP, BCACP, CDE
Clinical Professor and Assistant Dean for Academic Affairs
Diomedes Logothesis, PhD
Professor and Chair, Department of Pharmaceutical Sciences
Michael J. Gonyeau, PharmD, RPh, MEd, FCCP, FNAP, BCPS
Clinical Professor and Interim Chair, Department of Pharmacy and Health Systems Sciences

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schoolofpharmacy@northeastern.edu
The School of Pharmacy (SOP) is dedicated to excellence in pharmacyrelated education, research, and service, including the provision of patient care. We seek to prepare students with knowledge, skills, and values for careers in pharmacy practice and the pharmaceutical sciences. Our programs promote intellectual growth, professionalism, and lifelong learning. Through the generation and dissemination of new knowledge and through scholarship and community service, the school contributes to improved individual and population health.

The six-year (two years of preprofessional and four years of professional courses) program at Northeastern University leading to the professional Doctor of Pharmacy degree (PharmD) offers a unique program that fully integrates campus-based learning with experiential learning, including the university's signature cooperative education (co-op) program, to provide students with the skills and abilities necessary to succeed in the pharmacy profession. Our students promote and ensure the safe and effective use of drugs and provide medication therapy management services. In addition to preparing and dispensing prescribed medications, our students provide information to patients about medications and their uses; advise physicians, other prescribers, and other healthcare practitioners on medication selection, dosages, interactions, and adverse effects; and monitor patient responses to drug therapy.

Our students are well equipped to provide patient care services in a variety of settings. Most of our graduates work in community pharmacies or in healthcare facilities such as hospitals and ambulatory clinics. Additional practice opportunities exist in health maintenance organizations, private practice groups, long-term-care facilities, home healthcare, the Public Health Service, the armed services, and law enforcement agencies such as the Federal Drug Enforcement Administration. Graduates may also find employment in drug development, marketing and research within the pharmaceutical industry, colleges of pharmacy, and professional association management. In addition, many of our graduates go on to pharmacy practice residencies, fellowships, and leading graduate programs.

Pharmacy students are admitted with the expectation that by working with faculty, staff, and each other, they will develop the knowledge, skills, and attitudes necessary for academic and professional success. Students follow academic progression plans for their respective years of graduation. Any deviation from the prescribed curriculum will require faculty/staff permission and an approved plan of study from the SOP Academic Affairs Committee.

The pharmacy curriculum includes introductory (cooperative education) and advanced pharmacy practice experiences (APPEs). These pharmacy practice experiences are provided primarily under the direct supervision of qualified pharmacist preceptors and occasionally with other qualified healthcare professionals. The school is affiliated with many world-class practice sites throughout the United States, providing students with access to experienced clinicians and scholars. Although every effort is made to accommodate individual circumstances and requests, students should be prepared to travel outside the Boston area to complete some of their pharmacy practice experiences. Availability of a car may be required, as some sites are not accessible by public transportation. All expenses associated with pharmacy practice experiences, including travel and housing, are the responsibility of the student.

Introductory pharmacy practice experiences (IPPEs) are competitive placements that are based on job availability in a geographic region. The placements are facilitated by SOP cooperative education coordinators. Students are required to complete one IPPE in a community setting and one IPPE in an institutional/hospital practice setting.

APPE placements are provided based on site/preceptor availability and the final approval of the SOP Office of Experiential Education (OEE). Students may be able to petition the OEE for out-of-system APPEs; however, availability for such requests is limited.

To be eligible for a Doctor of Pharmacy degree (PharmD), a student must successfully complete all courses in the curriculum including the introductory (co-op) and APPEs; meet the academic progression standards of the program; meet the technical standards of the program; and satisfy all other requirements as stated in the Bouvé College of Health Sciences Undergraduate Student Information Manual. The pharmacy program, which is fully accredited by the Accreditation Council for Pharmacy Education (ACPE) (info@acpe-accredit.org), subscribes to the standards established by ACPE and the American Association of Colleges of Pharmacy.

Students enrolled in the PharmD program will be awarded a Bachelor of Science in Pharmacy Studies after successful completion of all didactic and laboratory courses in semesters 1 through 10 of the pharmacy curriculum with an overall grade-point average (GPA) of 2.000 or greater. The Bachelor of Science in Pharmacy Studies does not allow for individuals to pursue licensure for direct patient care in the practice of pharmacy. To earn the PharmD degree, students must complete an additional 36 semester hours of APPEs (see "Requirements for the Doctor
of Pharmacy Advanced Pharmacy Practice Experiences" below) with an overall GPA of 3.000 or greater in the Bouvé College of Health Sciences graduate program.

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 internship hours. The internship is a period of practical experience conducted under the supervision of a registered pharmacist. Massachusetts requires 1,740 internship hours, all of which are satisfied through the introductory (co-op) and APPEs.

The SOP offers a four-year degree program leading to the Bachelor of Science in Pharmaceutical Sciences (BSPS). The program is designed to prepare students for careers in entry-level positions in the pharmaceutical, biomedical, biotechnology, drug discovery, and development industries or to prepare graduates for admission into advanced degree (MS, PhD) programs in the pharmaceutical sciences. The BSPS does not qualify or prepare graduates to apply for licensure for the practice of pharmacy. This program will be open primarily to students already enrolled at Northeastern University who choose a future career that is grounded in the pharmaceutical sciences. Courses for the BSPS curriculum parallel the PharmD curriculum so credits are readily transferable. The BSPS degree requires a minimum of four years of study and provides for at least one co-op period. The total number of semester hours (134-143) meets the university minimum of 128 semester hours for a BS degree.

## Requirements for the Doctor of Pharmacy Advanced Pharmacy Practice Experiences

Requirements for eligibility to enter the PharmD APPEs include:

1. Successful completion of all required and elective didactic course work in the pharmacy curriculum and conferral of the Bachelor of Science in Pharmacy Studies degree.
2. Successful completion of the APPE preparatory courses (Advanced Pharmacy Practice Experience Preparatory Seminar 1 (PHMD 5438) and Advanced Pharmacy Practice Experience Preparatory Seminar 2 (PHMD 5439)).
3. Evidence of health clearance from University Health and Counseling Services before placements at any APPE site.
4. Satisfactory completion of any additional site-specific requirements including, but not limited to, criminal record information (CORI) and verification of immunization status. All fees associated with these requirements are the responsibility of the student.
5. Adherence to the SOP's code of professional conduct and university's code of conduct policies while off-campus.
6. Successful completion of six, six-week APPEs: four required APPEs (i.e., ambulatory care, community, internal/general medicine, and one health system experience); and two electives that may be patientcare or non-patient-care focused.
7. Maintenance of sufficient knowledge of site-specific requirements (via site descriptions) and completion of site requests within specified deadlines. Failure to complete these requirements as directed will likely result in delay of graduation.
8. Maintenance of an APPE portfolio throughout the APPE year and completion of all portfolio submission requirements within specified deadlines.
9. Attendance at scheduled on-campus APPE meetings during the APPE year:
a. Fall semester: midpoint APPE meeting
b. Spring semester: exit meeting

## Technical Standards for the Doctor of Pharmacy Program

The PharmD program at Northeastern University is a rigorous and challenging academic program that requires students to possess specific characteristics and abilities within the cognitive, affective, and psychomotor domains, referred to here as technical standards. To successfully progress in and ultimately complete the didactic, laboratory, and experiential components of the PharmD program, students must meet the standards described below.

## INTELLECTUAL ABILITIES

Students must have well-developed problem-solving and critical-thinking skills. Cognitive function must be appropriate to integrate, evaluate, and apply information gained through measurement, analysis, calculation, and reasoning. Students must have the capacity to learn efficiently in classroom, laboratory, small group and experiential settings, and through independent study. Students are required to demonstrate the ability to integrate course content knowledge with clinical practice applications to optimize medication therapy management.

## COMMUNICATION SKILLS

Students must be able to communicate effectively with colleagues, professors, patients, families, and healthcare providers. This includes efficiently comprehending, speaking, reading, and writing in English. Students must be able to process and use appropriate nonverbal cues and be proficient in the use of electronic communication media.

## BEHAVIORAL AND SOCIAL ATTRIBUTES

Students must demonstrate maturity, integrity, honesty, compassion, and respect when relating to others. Students must have sufficient mental and emotional health to complete work and responsibilities using good judgment. Students must be able to tolerate and adapt to stressful workloads and situations and modify behavior based on constructive criticism. Students must be able to function in accordance with the legal and ethical standards of practice.

## OBSERVATION AND MOTOR SKILLS

Students must have functional use of visual, auditory, and tactile senses. Students must be able to observe and perform experiments, physical assessments, patient interviews, and medication order processing. Students must be able to distinguish physical characteristics of medications by inspection. Students must have coordination of gross and fine muscular movements sufficient to perform pharmacy-related tasks including compounding and dispensing medications, administering medications, and using computers and other technology necessary for learning and professional practice.

## Programs

Bachelor of Science (BS)

- Pharmaceutical Sciences (p. 450)
- Pharmacy Studies (p. 451)


## Doctor of Pharmacy (PharmD)

- Pharmacy (p. 453)


## Pharmaceutical Sciences, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required courses. Students are responsible for satisfying these requirements with Open Electives.

| BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | 5 |
| :---: | :---: | :---: |
| CHEM 1211 <br> and CHEM 1212 <br> and CHEM 1213 | General Chemistry 1 <br> and Lab for CHEM 1211 <br> and Recitation for CHEM 1211 | 5 |
| PSYC 1101 | Foundations of Psychology | 4 |
| ENGW 1111 | First-Year Writing (a grade of $C$ or higher required) | 4 |
| PHMD 1000 | College: An Introduction | 1 |
| SEMESTER 2 |  |  |
| BIOL 1113 <br> and BIOL 1114 | General Biology 2 and Lab for BIOL 1113 | 5 |
| CHEM 1214 <br> and CHEM 1215 and CHEM 1216 | General Chemistry 2 <br> and Lab for CHEM 1214 <br> and Recitation for CHEM 1214 | 5 |
| MATH 1241 | Calculus 1 | 4 |
| PHMD 1001 | Introduction to the Profession of Pharmacy | 1 |
| Open Elective |  | 4 |
| SEMESTER 3 |  |  |
| PHYS 1149 and PHYS 1150 | Physics for Pharmacy and Lab for PHYS 1149 | 5 |
| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 | 5 |
| $\begin{aligned} & \text { PHSC } 2301 \\ & \text { and PHSC } 2302 \end{aligned}$ | Human Physiology 1 and Human Anatomy Lab | 4 |
| Open Elective |  | 4 |
| SEMESTER 4 |  |  |
| PHMD 1201 and PHMD 1202 | Introduction to Pharmacy Practice and Lab for PHMD 1201 | 3 |
| CHEM 2313 <br> and CHEM 2314 <br> and CHEM 2320 | Organic Chemistry 2 <br> and Lab for CHEM 2313 <br> and Recitation for CHEM 2313 | 5 |
| $\begin{aligned} & \text { PHSC } 2303 \\ & \text { and PHSC } 2304 \end{aligned}$ | Human Physiology 2 and Human Physiology Lab | 4 |
| Open Elective |  | 4 |
| SEMESTER 5 |  |  |
| PHSC 2320 | Biochemistry | 4 |
| PHSC 4501 | Pharmacology/Medicinal Chemistry 1 | 5 |
| PHSC 3411 | Pharmaceutics 1 | 4 |


| ENGW 3306 | Advanced Writing in the Health Professions (a grade of C or higher | BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | 5 |
| :---: | :---: | :---: | :---: | :---: |
|  | required) | and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| SEMESTER 6 |  |  |  |  |
| PHSC 6212 | Research Skills and Ethics | PSYC 1101 | Foundations of Psychology | 4 |
| PHSC 4502 | Pharmacology/Medicinal Chemistry 2 5 | ENGW 1111 | First-Year Writing (a grade of C or higher required) | 4 |
| PHSC 3419 | Pharmaceutics Laboratory 1 |  |  |  |
| PHSC 3412 | Pharmaceutics 2 4 | SEMESTER 2 |  |  |
| Open Elective | 4 | BIOL 1113 <br> and BIOL 1114 | General Biology 2 and Lab for BIOL 1113 | 5 |
| SEMESTER 7 |  |  |  |  |
| Complete one of the following: 4 |  | CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| MATH 2280 | Statistics and Software |  |  |  |
| MATH 2285 | Introduction to Multisample Statistics | MATH 1241 | Calculus 1 | 4 |
| ECON 2350 | Statistics | PHMD 1001 | Introduction to the Profession of Pharmacy | 1 |
| HLTH 5450 | Healthcare Research | Open Elective |  | 0-4 |
| PHMD 3450 | Research Methodology and Biostatistics | SEMESTER 3 |  |  |
| Complete 6-8 semester hours of elective credit. 6-8 |  | PHYS 1149 and PHYS 1150 | Physics for Pharmacy and Lab for PHYS 1149 | 5 |
| Toxicology Requirement 3 |  | CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| Complete at least 3 SH in the area of toxicology taken after successful completion of PHSC 4502. Contact your advisor for course options. |  |  |  |  |
|  |  | $\begin{aligned} & \text { PHSC } 2301 \\ & \text { and PHSC } 2302 \end{aligned}$ | Human Physiology 1 and Human Anatomy Lab | 4 |
| SEMESTER 8 |  | Open Elective |  | 0-4 |
| PHSC 3430 | Pharmacokinetics and Biopharmaceutics | SEMESTER 4 |  |  |
| PHSC 2330 | Immunology 3 | ENGW 3306 | Professions | 4 |
| PHSC 4850 | Capstone for BS in Pharmaceutical Sciences | PHMD 1201 and PHMD 1202 | Introduction to Pharmacy Practice and Lab for PHMD 1201 | 3 |
| Complete one 4 semester hour elective course. 4 |  | CHEM 2313 <br> and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Program Requirement |  |  |  |  |
| 133 total semester hours required |  | PHSC 2303 and PHSC 2304 | Human Physiology 2 and Human Physiology Lab | 4 |
| Pharmacy Studies, BS |  | GPA Progression Requirement for Third Year |  |  |
|  |  | A 3.000 GPA is required at the end of the second year to progress to the third year. |  |  |
| Program Requirements |  | SEMESTER 5 |  | 3 |
| Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements. |  | PHMD 2350 | Healthcare Systems |  |
|  |  | PHSC 2320 | Biochemistry | 4 |
|  |  | PHSC 4501 | Pharmacology/Medicinal Chemistry 1 | 5 |
|  |  | PHSC 3411 | Pharmaceutics 1 | 4 |
| University-Wide Requirements |  | SEMESTER 6 |  | 2.5 |
| All undergraduate students are required to complete the University-Wide Requirements (p. 38). |  | and PHMD 2311 | Educational and Behavioral Interventions in Pharmacy Practice and Lab for PHMD 2310 |  |
| NUpath Requirements |  | PHMD 5250 | Pharmacy Care Management | 3 |
| All undergraduate students are required to complete the NUpath Requirements (p. 34). |  | PHSC 4502 | Pharmacology/Medicinal Chemistry 2 | 5 |
|  |  | PHSC 3419 | Pharmaceutics Laboratory | 1 |
| The NUpath requirement Interpreting Culture (IC) is not explicitly satisfied by required courses. Students are responsible for satisfying this requirement with an Open Elective. |  | PHSC 3412 | Pharmaceutics 2 | 4 |
|  |  | SEMESTER 7 |  |  |
|  |  | PHSC 3430 | Pharmacokinetics and Biopharmaceutics |  |
| Pharmacy Major Grade Requirement |  | PHSC 2330 | Immunology | 3 |
| A grade of C or higher is required in all PHMD and PHSC courses. |  | PHMD 4611 | Comprehensive Disease Management 1 | 6 |
| SEMESTER 1 |  | PHMD 4612 | Comprehensive Disease Management 1 Seminar | 1 |


| PHMD 3450 | Research Methodology and | 3 | PHMD 4880 | Special Topics |
| :---: | :---: | :---: | :---: | :---: |
|  | Biostatistics |  | PHMD 4970 | Junior/Senior Honors Project 1 |
| SEMESTER 8 |  |  | PHMD 4971 | Junior/Senior Honors Project 2 |
| PHSC 5360 | Anti-Infectives | 4 | PHMD 4991 | Research |
| PHMD 4621 | Comprehensive Disease Management 2 | 6 | PHMD 4992 | Directed Study |
| PHMD 4622 | Comprehensive Disease Management 2 Seminar | 1 | PHMD 4993 | Independent Study |
| PHMD 4623 | Comprehensive Disease Management 2 <br> Skills Lab | 0.5 | PHMD 5570 | Technology in Healthcare and Pharmacy Practice |
|  |  |  | PHSC 4970 | Junior/Senior Honors Project 1 |
| SEMESTER 9 |  |  | PHSC 4971 | Junior/Senior Honors Project 2 |
| PHMD 5223 | Evidence-Based Medicine | 3 | PHMD 4890 | Contemporary Issues in Geriatric |
| PHMD 5330 | Jurisprudence | 3 |  | Pharmacy |
| PHMD 4631 | Comprehensive Disease Management 3 | 6 | PHSC 4991 | Research |
| PHMD 4632 | Comprehensive Disease Management 3 Seminar | 1 | PHSC 4992 | Directed Study |
|  |  |  | PHSC 4993 | Independent Study |
| PHMD 4633 | Comprehensive Disease Management 3 Skills Lab | 0.5 | PHSC 5100 | Concepts in Pharmaceutical Science |
| PHMD 5438 | Advanced Pharmacy Practice Experience Preparatory Seminar 1 | 0.5 | PHSC 5200 | Advanced Immunology and Immunological Therapies |
| SEMESTER 10 |  |  | PHSC 6210 | Drug Design, Evaluation, and Development |
| PHMD 4641 | Comprehensive Disease Management 4 | 6 | PHSC 6212 | Research Skills and Ethics |
| PHMD 4642 | Comprehensive Disease Management 4 Seminar | 1 | PHSC 6218 | Biomedical Chemical Analysis |
| PHMD 4643 | Comprehensive Disease Management 4 Skills Lab | 0.5 | PHSC 6222 | The Chemistry and Biology of Drugs of Abuse |
| PHMD 5439 | Advanced Pharmacy Practice Experience Preparatory Seminar 2 | 0.5 | PHSC 6224 | Behavioral Pharmacology and Drug Discovery |
| PHMD 5270 | Economic Evaluation of Pharmaceuticals and Pharmacy Practice | 2 | PHSC 6226 | Imaging in Medicine and Drug Discovery |
|  |  |  | PMCL 6262 | Receptor Pharmacology |
|  |  |  | PMST 6250 | Advanced Physical Pharmacy |
| Professional Elective and Capstone Requirements | ive and Capstone Requirements |  | PMST 6252 | Pharmacokinetics and Drug Metabolism |
| A minimum of 8 semester hours of Open Electives are required. Additional electives may be required to fulfill the total semester hours required for your program. |  | 8 | PMST 6254 | Advanced Drug Delivery System |
|  |  | PHTH 5120 | Race, Ethnicity, and Health in the United States |
| Professional Elective |  |  |  | PHTH 5202 | Epidemiology |
| Complete at least two semester hours during the professional phase of the program (after semester 4) from the following: |  | 2 | PHTH 5210 | Biostatistics in Public Health |
|  |  | PHTH 5212 | Public Health Administration and Policy |
| HLTH 1010 | From the Community to the Intensive Care Unit: Approaching Interdisciplinary Research in the Elderly |  |  | PHTH 5214 | Environmental Health |
|  |  |  | PHTH 5222 | Health Advocacy |
|  |  |  | PHTH 5224 | Social Epidemiology |
| HLTH 2302 | Alternative Medicine |  | PHTH 5226 | Strategic Management and Leadership |
| HLTH 5005 | Introduction to Health and Aging |  |  | in Healthcare |
| HLTH 5135 | Developing an Interdisciplinary Approach to Health Management for Older Adults |  | PHTH 5228 | Advances in Measuring Behavior |
|  |  |  | PHTH 5232 | Evaluating Healthcare Quality |
| HLTH 5280 | The (in)Visibility of (dis)Ability in Society |  | PHTH 5234 | Economic Perspectives on Health Policy |
| HSCI 4510 | Healthcare Ethics |  | PHTH 5240 | Evaluating Scientific Evidence |
| HSCI 5230 | Clinical Nutrition Applications in Health and Disease |  | PHTH 5540 | Health Education and Program Planning |
| PHMD 3600 | Leadership and Advocacy in Health Professions |  | PHTH 6200 | Principles and History of Urban Health |
|  |  |  | PHTH 6204 | Society, Behavior, and Health |
| PHMD 4350 | Exploring Academic Careers |  | PHTH 6208 | Urban Community Health Assessment |
| PHMD 4581 | Cancer Chemotherapy |  | PHTH 6228 | Public Health Nutrition |
| PHMD 4585 | Research Methods in Health Systems |  | PHTH 6320 | Qualitative Methods in Health and Illness |


| PSYC 4514 | Clinical Neuroscience |  |
| :---: | :---: | :---: |
| NRSG 1205 | Wellness |  |
| NRSG 6210 | Holistic Healing and Integrative Health |  |
| NRSG 6282 | Clinical Psychopharmacology |  |
| NRSG 6287 | Child and Adolescent Psychopharmacology |  |
| NRSG 6300 | Healthcare Finance and Marketing |  |
| NRSG 6302 | Health Policy and Law |  |
| NRSG 6306 | Health Informatics |  |
| NRSG 6307 | Operational Informatics in Healthcare Organizations |  |
| NRSG 6310 | Nurse/Healthcare Entrepreneur |  |
| HINF 5101 | Introduction to Health Informatics and Health Information Systems |  |
| HINF 5102 | Data Management in Healthcare |  |
| HINF 6205 | Creation and Application of Medical Knowledge |  |
| SLPA 1101 | Introduction to Communication Disorders |  |
| SPNS 1402 | Elementary Spanish 2 for Healthcare Professionals |  |
| SPNS 2302 | Intermediate Spanish Immersion 2 |  |
| CAEP 6220 | Development Across the Life Span |  |
| CAEP 6290 | Reality Therapy |  |
| Capstone |  |  |
| PHMD 4600 or PHSC 4600 | Pharmacy Capstone | 4 |

## Program Requirement

166 total semester hours required

## Pharmacy, PharmD

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

The NUpath requirement Interpreting Culture (IC) is not explicitly satisfied by required courses. Students are responsible for satisfying this requirement with an Open Elective.

## Pharmacy Major Grade Requirement

A grade of $C$ or higher is required in all PHMD and PHSC courses.

| SEMESTER 1 |  |
| :--- | :--- |
| PHMD 1000 | College: An Introduction |

BIOL 1111 General Biology $1 \quad 5$
and BIOL 1112
CHEM 1211
and CHEM 1212
ENGW 1111

PSYC 1101
SEMESTER 2
BIOL 1113 General Biology $2 \quad 5$
and BIOL 1114 and Lab for BIOL 1113
CHEM 1214 General Chemistry 2
5
and CHEM 1215 and Lab for CHEM 1214
MATH 1241 Calculus $1 \quad 4$
PHMD 1001 Introduction to the Profession of 1
Pharmacy
NU Path Interpreting Culture or Open Elective
SEMESTER 3
PHYS $1149 \quad$ Physics for Pharmacy 5
and PHYS 1150
CHEM 2311
and CHEM 2312
PHSC 2301 Human Physiology 1
and PHSC 2302 and Human Anatomy Lab
NU Path Interpreting Culture or Open Elective

## SEMESTER 4

ENGW 3306 Advanced Writing in the Health 4

PHMD 1201 Introduction to Pharmacy Practice 3
and PHMD 1202 and Lab for PHMD 1201
CHEM $2313 \quad$ Organic Chemistry 2
and CHEM 2314 and Lab for CHEM 2313
PHSC 2303 Human Physiology 24
and PHSC 2304 and Human Physiology Lab
GPA Progression Requirement for Third Year
A 3.000 GPA is required at the end of the second year to progress to the third year.
SEMESTER 5

| PHMD 2350 | Healthcare Systems | 3 |
| :--- | :--- | ---: |
| PHSC 2320 | Biochemistry | 4 |
| PHSC 4501 | Pharmacology/Medicinal Chemistry 1 | 5 |
| PHSC 3411 | Pharmaceutics 1 | 4 |
| SEMESTER 6 |  | 2.5 |
| PHMD 2310 | Educational and Behavioral |  |
| and PHMD 2311 | Interventions in Pharmacy Practice <br> and Lab for PHMD 2310 |  |
| PHMD 5250 | Pharmacy Care Management | 3 |
| PHSC 4502 | Pharmacology/Medicinal Chemistry 2 | 5 |
| PHSC 3419 | Pharmaceutics Laboratory | 1 |
| PHSC 3412 | Pharmaceutics 2 | 4 |
| SEMESTER 7 | Pharmacokinetics and | 3 |
| PHSC 3430 | Biopharmaceutics | 3 |
| PHSC 2330 | Immunology | 6 |
| PHMD 4611 | Comprehensive Disease Management 1 | 6 |
| PHMD 4612 | Comprehensive Disease Management 1 | 1 |


| PHMD 3450 | Research Methodology and Biostatistics | 3 | HSCI 5230 | Clinical Nutrition Applications in Health and Disease |
| :---: | :---: | :---: | :---: | :---: |
| SEMESTER 8 |  |  | PHMD 3600 | Leadership and Advocacy in Health |
| PHMD 5330 | Jurisprudence | 3 |  | Professions |
| PHSC 5360 | Anti-Infectives | 4 | PHMD 4350 | Exploring Academic Careers |
| PHMD 4621 | Comprehensive Disease Management 2 | 6 | PHMD 4581 | Cancer Chemotherapy |
| PHMD 4622 | Comprehensive Disease Management 2 Seminar | 1 | PHMD 4585 | Research Methods in Health Systems |
|  |  |  | PHMD 4880 | Special Topics |
| PHMD 4623 | Comprehensive Disease Management 2 Skills Lab | 0.5 | PHMD 4890 | Contemporary Issues in Geriatric Pharmacy |
| SEMESTER 9 |  |  | PHMD 4970 | Junior/Senior Honors Project 1 |
| PHMD 5223 | Evidence-Based Medicine | 3 | PHMD 4971 | Junior/Senior Honors Project 2 |
| PHMD 4631 | Comprehensive Disease Management 3 | 6 | PHMD 4991 | Research |
| PHMD 4632 | Comprehensive Disease Management 3 Seminar | 1 | PHMD 4992 | Directed Study |
|  |  |  | PHMD 4993 | Independent Study |
| PHMD 4633 | Comprehensive Disease Management 3 Skills Lab | 0.5 | PHMD 5570 | Technology in Healthcare and Pharmacy Practice |
| PHMD 5438 | Advanced Pharmacy Practice Experience Preparatory Seminar 1 | 0.5 | PHSC 4970 | Junior/Senior Honors Project 1 |
|  |  |  | PHSC 4971 | Junior/Senior Honors Project 2 |
| SEMESTER 10 |  |  | PHSC 4991 | Research |
| PHMD 4641 | Comprehensive Disease Management 4 | 6 | PHSC 4992 | Directed Study |
| PHMD 4642 | Comprehensive Disease Management 4 Seminar | 1 | PHSC 4993 | Independent Study |
| PHMD 4643 | Comprehensive Disease Management 4 Skills Lab | 0.5 | PHSC 5100 | Concepts in Pharmaceutical Science |
|  |  |  | PHSC 5200 | Advanced Immunology and Immunological Therapies |
| PHMD 5439 | Advanced Pharmacy Practice <br> Experience Preparatory Seminar 2 | 0.5 | PHSC 6210 | Drug Design, Evaluation, and Development |
| PHMD 5270 | Economic Evaluation of Pharmaceuticals and Pharmacy Practice | 2 | PHSC 6212 | Research Skills and Ethics |
|  |  |  | PHSC 6218 | Biomedical Chemical Analysis |
| SEMESTER 11 |  |  | PHSC 6222 | The Chemistry and Biology of Drugs of Abuse |
| A minimum 3.000 GPA is required for Semester 11. |  |  | PHSC 6224 |  |
| Advanced Practice Experience |  |  |  | Discovery |
| Select courses in the following range to complete six, sixweek rotations: |  | 36 | PHSC 6226 | Imaging in Medicine and Drug Discovery |
| PHMD 6440 to PHMD 6474 |  |  | PMCL 6262 | Receptor Pharmacology |
| Professional Elective and Capstone Requirements |  |  | PMST 6250 | Advanced Physical Pharmacy |
| Open Electives |  |  | PMST 6252 | Pharmacokinetics and Drug Metabolism |
| A minimum of 8 semester hours of Open Electives are required. Additional electives may be required to fulfill the total semester hours required for your program. |  | 10 | PMST 6254 | Advanced Drug Delivery System |
|  |  | PHTH 5120 | Race, Ethnicity, and Health in the United |
| Professional Elective |  |  |  |  | States |
| Complete at least two semester hours during the professional phase of the program (after semester 4) from the following: |  | 2 | PHTH 5202 | Epidemiology |
|  |  | PHTH 5210 | Biostatistics in Public Health |
| HLTH 1010 | From the Community to the Intensive Care Unit: Approaching Interdisciplinary Research in the Elderly |  |  | PHTH 5212 | Public Health Administration and Policy |
|  |  |  | PHTH 5214 | Environmental Health |
|  |  |  | PHTH 5222 | Health Advocacy |
| HLTH 2302 | Alternative Medicine |  | PHTH 5224 | Social Epidemiology |
| HLTH 5005 | Introduction to Health and Aging |  | PHTH 5226 | Strategic Management and Leadership in Healthcare |
| HLTH 5135 | Developing an Interdisciplinary Approach to Health Management for Older Adults |  |  |  |
|  |  |  | PHTH 5228 | Advances in Measuring Behavior |
|  |  |  | PHTH 5232 | Evaluating Healthcare Quality |
| HLTH 5280 | The (in)Visibility of (dis)Ability in Society |  | PHTH 5234 | Economic Perspectives on Health Policy |
| HSCI 4510 | Healthcare Ethics |  | PHTH 5240 | Evaluating Scientific Evidence |


| PHTH 5540 | Health Education and Program Planning |  |
| :---: | :---: | :---: |
| PHTH 6200 | Principles and History of Urban Health |  |
| PHTH 6204 | Society, Behavior, and Health |  |
| PHTH 6208 | Urban Community Health Assessment |  |
| PHTH 6228 | Public Health Nutrition |  |
| PHTH 6320 | Qualitative Methods in Health and Illness |  |
| PSYC 4514 | Clinical Neuroscience |  |
| NRSG 1205 | Wellness |  |
| NRSG 6210 | Holistic Healing and Integrative Health |  |
| NRSG 6282 | Clinical Psychopharmacology |  |
| NRSG 6287 | Child and Adolescent Psychopharmacology |  |
| NRSG 6300 | Healthcare Finance and Marketing |  |
| NRSG 6302 | Health Policy and Law |  |
| NRSG 6306 | Health Informatics |  |
| NRSG 6307 | Operational Informatics in Healthcare Organizations |  |
| NRSG 6310 | Nurse/Healthcare Entrepreneur |  |
| HINF 5101 | Introduction to Health Informatics and Health Information Systems |  |
| HINF 5102 | Data Management in Healthcare |  |
| HINF 6205 | Creation and Application of Medical Knowledge |  |
| SLPA 1101 | Introduction to Communication Disorders |  |
| SPNS 1402 | Elementary Spanish 2 for Healthcare Professionals |  |
| SPNS 2302 | Intermediate Spanish Immersion 2 |  |
| CAEP 6220 | Development Across the Life Span |  |
| CAEP 6290 | Reality Therapy |  |
| Capstone |  |  |
| PHMD 4600 or PHSC 4600 | Pharmacy Capstone | 4 |

## Program Requirement

200 total semester hours required
Plan of Study
Six Years, Three Co-ops


Year 2
$\left.\begin{array}{llllll}\text { Fall } & \text { Hours Spring } & \text { Hours } & & \begin{array}{l}\text { Summer Hours } \\ \text { Full }\end{array} \\ \text { Semester }\end{array}\right)$

Year 3


Year 4

| Fall | Hours | Spring Hour | Hours | Summer Hours <br> Full <br> Semester |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Co-op | 0 | PHSC 3430 | 3 | PHMD 6 | 3 |
|  |  | PHSC 2: | 3 | PHMD 5 | 3 |
|  |  | PHMD 3450 | 3 | PHMD 4 | 6 |
|  |  | PHMD 4 | 6 | PHMD 4 | 1 |
|  |  | PHMD 4612 | 1 | PHMD 4 | . 5 |
|  |  | Elective | 4 | PHSC 5 | 4 |
|  |  |  |  | Elective | 4 |
|  | 0 |  | 20 |  | . 5 |

Year 5

| Fall Ho | Hours Spring Hour |  | Hours | Summer <br> Full <br> Semester |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHMD 4631 | 6 | PHMD 4641 | 6 | PHMD <br> advanced <br> practice experience | 6 |
| PHMD 4 | 1 | PHMD 4 | 1 | PHMD <br> advance practice experier | 6 |

PHMD 52503 PHMD 46430.5
PHMD 4 0.5 PHMD $5 \quad 2$
PHMD 5438 0.5 PHMD 54390.5

| Elective <br> course | Elective <br> course | 4 |  |
| :--- | :---: | :---: | :---: |
| Elective <br> course | Elective <br> course | 4 | 12 |
|  | 19 | 18 |  |


| Year 6 |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall Hours Spring Hours |  |  |  |
| PHMD <br> advanced practice experience | 6 | PHMD advanced practice experience | 6 <br>  |
| PHMD advance practice experier |  | PHMD <br> advancє practice experier | 6 |
| 12 |  |  | 12 |

Total Hours: 219

Website (http://www.northeastern.edu/cos)
Kenneth W. Henderson, PhD, Dean
George O. Alverson, PhD, Associate Dean, Academic Affairs
David E. Budil, PhD, Associate Dean, Research
Frederick C. Davis, PhD, Associate Dean, Faculty Affairs
James Sarazen, MBA, Associate Dean, Administration and Finance
Dean's Office
115 Richards Hall
617.373.5085
617.373 .8583 (fax)
cos@northeastern.edu

## Student Services Office

206 Mugar Life Sciences Building
617.373.4475

COSAdvising@northeastern.edu
The College of Science (COS) offers instructional programs that are at the forefront of discovery, invention, and innovation in the physical sciences, life sciences, linguistics, and mathematics. Our programs are designed to give students a deep understanding and hands-on experience in traditional and emerging interdisciplinary fields such as chemical biology, cognition and neuroscience, marine science, biochemistry, nanoscience, and network science.

The college places a strong emphasis on the experiential learning model and seeks to provide students with a wide array of opportunities to explore innovative, interdisciplinary collaborations through cooperative educational work assignments, service-learning, undergraduate research, internships, study-abroad programs, and active participation in our awardwinning student chapters of professional associations. The college seeks to provide students with the best possible foundation for achieving their goals, whether they seek to attend graduate school, professional school, or immediately pursue a career upon graduation.

The college offers Bachelor of Arts (BA), Bachelor of Science (BS), and Bachelor of Science/Master of Science (BS/MS) (PlusOne programs) degrees in a number of majors, as well as a Bachelor of Science/ Doctor of Philosophy ( $\mathrm{BS} / \mathrm{PhD}$ ) in physics and many interdisciplinary programs, and emphasizes the value of a solid general education through the NU Core. Students may choose a four- or five-year experiential learning 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 co-op in the second semester of their sophomore year.

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 combined 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.

## PlusOne Programs

Many programs and departments such as biochemistry, biology, chemistry and chemical biology, mathematics, and physics offer academically strong students the option of obtaining their BS and MS degree in five years.

## Academic Advising

The College of Science has an academic advising system that consists of professional advisors located in the College of Science Student Services Office in 206 Mugar Hall and faculty advisors located in the college's department and program offices. Detailed advising information is available on the college website (http://www.northeastern.edu/cos). Prelaw (http://www.northeastern.edu/prelaw) advising and prehealth (http://www.northeastern.edu/prehealth) advising are also available.

## Academic Progression Standards

The College of Science 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 Science are required to meet with an academic advisor in the College of Science Student Services Office in 206 Mugar 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.

## College Requirements

All students in the College of Science must successfully complete the university requirements of NUpath (p. 34). In addition, students pursuing a Bachelor of Arts degree must fulfill the BA requirements (p. 37).

## Behavioral Neuroscience

Website (http://www.northeastern.edu/cos/bns)
Richard H. Melloni Jr., PhD
Professor, Psychology, and Program Director
M. Jade Zee, Assistant Teaching Professor and Associate Director 203 Mugar Life Sciences Building
617.373.2852
bns@northeastern.edu
The behavioral neuroscience major is an interdepartmental program for undergraduates, supported by neuroscience faculty across the College of Science. 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 the anatomy and physiology of nerve cells, chemical transmission, neural circuits, 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 in 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 or other health profession programs. 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 with any of the following majors is not permitted: psychology, biology, cell and molecular biology, or biochemistry. Since the behavioral neuroscience major is already an interdisciplinary program of study, combined or independent majors with behavioral neuroscience are not permitted.

## 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:

| Complete five of the following: |  |  |
| :---: | :---: | :---: |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| Complete one of the following: |  |  |
| PSYC 3458 | Biological Psychology | 4 |
| BIOL 3405 | Neurobiology | 4 |

Students who transfer into the behavioral neuroscience major will be allowed two semesters after entering the major to meet the minimum standards for their class. Students must maintain a minimum GPA of 2.000 to remain in this program. Students who fail to meet the above standards will be placed on probation. Two consecutive semesters on probation will result in dismissal from the major.

## Behavioral Neuroscience Minor

The behavioral neuroscience minor consists of five courses requiring a minimum of 20 semester hours of study. Students are required to take one intermediate-level survey course and four behavioral neuroscience core courses, two from each of the parent departments of the discipline (i.e., psychology and biology). All students regardless of their major, including those majoring in psychology and biology, may minor in behavioral neuroscience.

## Programs

## Bachelor of Science (BS)

- Behavioral Neuroscience (p. 458)


## Minor

- Behavioral Neuroscience (p. 460)


## Behavioral Neuroscience, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Behavioral Neuroscience Major Requirements

Survey Courses-Level 1: Introductory

| Psychology |  |  |
| :---: | :---: | :---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| Mathematics |  |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| Biology |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Physics |  |  |
| Complete one of the following: |  | 5 |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 and PHYS 1163 | Physics 1 <br> and Lab for PHYS 1161 <br> and Recitation for PHYS 1161 |  |
| PHYS 1171 <br> and PHYS 1172 <br> and PHYS 1173 | Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171 |  |
| Survey Courses-Level 2: Intermediate |  |  |
| Psychology |  |  |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3458 | Biological Psychology | 4 |
| Biology |  |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |

## Behavioral Neuroscience Core Requirements

Complete six of the following courses. At least three must be 24-25 numbered in the 4000-5999 range:

| BIOL 3403 | Animal Behavior |
| :--- | :--- |
| BIOL 3405 | Neurobiology |
| PSYC 3506 | Neuropsychology of Fear |
| PSYC 3508 | Behavioral Endocrinology |
| PSYC 3510 | Brain, Behavior, and Immunity |
| BIOL 3601 | Neural Systems and Behavior |
| BIOL 3605 | Developmental Neurobiology |
| PSYC 4510 | Psychopharmacology |
| PSYC 4512 | Neuropsychology |
| PSYC 4514 | Clinical Neuroscience |
| PSYC 4570 | Behavioral Genetics |
| BIOL 4705 | Neurobiology of Cognitive Decline |
| BIOL 5587 | Comparative Neurobiology |
| PT 5410 | Functional Human Neuroanatomy |
| and PT 5411 | and Lab for PT 5410 |

## Behavioral Neuroscience Advanced Courses

Psychology Elective
An additional behavioral neuroscience core course may be
used to fulfill this requirement.
Complete one of the following:

| Complete one of the following: |  |
| :--- | :--- |
| PSYC 3358 | Behavior Therapies |
| PSYC 3404 | Developmental Psychology |
| PSYC 3406 | Abnormal Psychology |
| PSYC 3450 | Learning and Motivation |
| PSYC 3451 | Learning Principles and Behavior <br>  <br> Analysis |
| PSYC 3452 | Sensation and Perception |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |
| PSYC 4524 | Cognitive Development |
| PSYC 4520 | Language and the Brain |
| Biology Elective |  |
| Complete one of the following: |  |


| BIOL 2321 <br> and BIOL 2322 | Microbiology <br> and Lab for BIOL 2321 |
| :--- | :--- |
| BIOL 2323 <br> and BIOL 2324 | and |
| BIOL 3401 |  |
| and BIOL 3402 | Comparative Vertebrate Anatomy <br> and |
| BIOL 3407 | Molecular Cell Biology |
| BIOL 3409 | Current Topics in Biology |
| BIOL 3603 | Mammalian Systems Physiology |
| BIOL 5306 | Biological Clocks |
| BIOL 5543 | Stem Cells and Regeneration |
| BIOL 5581 | Biological Imaging |
| BIOL 5601 | Multidisciplinary Approaches in Motor <br> Control |
| Specialty Course |  |
| Complete one of the following: |  |

Complete one of the following:

| PSYC 4508 | Assessment and Data Collection in <br> Applied Behavior Analysis |
| :--- | :--- |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional <br>  <br> PSYClopment 4991 |
| PSYC 4994 | Directed Study Research |
| PSYC 4965 | Undergraduate Teaching Experience |

## Behavioral Neuroscience Experiential Learning Requirement

Complete one of the following two options:

## Option 1: Practical and Reflective Experience

## Practical Experience

Complete a research co-op, directed study, or internship.
Reflective Experience
Complete one of the following:
BIOL 4701 Biology Capstone
PSYC 4650 to PSYC 4674
Option 2: Honors Project
Complete two of the following:
BIOL 4970 Junior/Senior Honors Project 1
and BIOL 4971 and Junior/Senior Honors Project 2
PSYC 4970
and PSYC 4971 and Junior/Senior Honors Project 2

## Behavioral Neuroscience Major Credit/GPA Requirement

Complete 90 semester hours in the major with a minimum 2.000 GPA.
Due to overlap in course content, double majoring in behavioral neuroscience with any of the following majors is not permitted:
psychology, biology, cell and molecular biology, or biochemistry.

## Program Requirement

132 total semester hours required

## Plan of Study

Four Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 <br> and <br> BIOL 1108 | 5 BIOL 2299 | $\begin{aligned} & 4 \text { BIOL } 2301 \\ & \text { and } \\ & \text { BIOL } 2302 \end{aligned}$ | 5 Vacation | 0 |
| PSYC 1101 | 4 PSYC 3458 | 4 Adv PSYC elective | 4 |  |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 CHEM 1214 <br> and <br> CHEM 1215 and CHEM 1216 | 5 |  |  |
| MATH 1251 | 4 ENGW 1111 | 4 |  |  |
| BNSC 1000 | 1 |  |  |  |
|  | 19 | 17 | 9 | 0 |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 1145 <br> and <br> PHYS 1146 | 5 ENGW 3307 | 4 Co-op | 0 |
|  | BNS core <br> course 4 | 4 Elective | 4 |  |
| Adv BIOL <br> elective <br> Elective | 5 |  |  |  |
|  | 0 | 18 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | BNS core <br> course 5 | 4 |
|  | BNS core <br> course 6 | 5 |
|  | Capstone | 4 |
|  | Elective | 5 |
| 0 | 18 |  |

Total Hours: 132

## Five Years, Three Co-ops in Spring/Summer 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 <br> and <br> BIOL 1108 | 5 BIOL 2299 | 4 Vacation | 0 Vacation | 0 |
| PSYC 1101 | 4 PSYC 3458 | 4 |  |  |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 CHEM 1214 <br> and <br> CHEM 1215 and CHEM 1216 | 5 |  |  |
| MATH 1251 | 4 ENGW 1111 | 4 |  |  |
| BNSC 1000 | 1 |  |  |  |
|  | 19 | 17 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BIOL 2301 <br> and <br> BIOL 2302 | 5 Co-op | 0 Co-op | 0 Adv PSYC elective | 4 |
| CHEM 2311 <br> and <br> CHEM 2312 | 5 |  | Elective | 4 |


| PSYC 2320 | 4 |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Specialty <br> course | 4 |  |  |  |
| EESC 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 2313 <br> and <br> CHEM 2314 | 5 Co-op | 0 Co-op | 0 Vacation | 0 |
| BNS core <br> course 1 | 4 |  |  |  |
| BNS core <br> course 2 | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
|  | 17 | 0 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS 1145 <br> and <br> PHYS 1146 | 5 Co-op | 0 Co-op | 0 Vacation | 0 |
| BNS core course 3 | 4 |  |  |  |
| Adv BIOL elective | 5 |  |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| BNS core course 4 | 4 BNS core course 6 | 5 |
| BNS core course 5 | 4 Capstone course | 4 |
| ENGW 3307 | 4 Elective | 4 |
| Elective | 5 Elective | 4 |
|  | 17 | 17 |

Total Hours: 132

## Behavioral Neuroscience, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Intermediate Course

| PSYC 3458 | Biological Psychology |
| :---: | :--- |
| or BIOL 3405 | Neurobiology |

## Psychology Core Courses

| Complete two of the following courses: |  |
| :--- | :--- |
| PSYC 3506 | Neuropsychology of Fear |
| PSYC 3508 | Behavioral Endocrinology |
| PSYC 4514 | Clinical Neuroscience |
| PSYC 3510 | Brain, Behavior, and Immunity |
| PSYC 4510 | Psychopharmacology |
| PSYC 4512 | Neuropsychology |

PSYC $4570 \quad$ Behavioral Genetics

## Biology Core Courses

Complete two of the following courses not completed above:

| BIOL 3403 | Animal Behavior |
| :--- | :--- |
| BIOL 3405 | Neurobiology |
| BIOL 3601 | Neural Systems and Behavior |
| BIOL 3605 | Developmental Neurobiology |
| BIOL 4705 | Neurobiology of Cognitive Decline |
| BIOL 5587 | Comparative Neurobiology |

## Credit/GPA Requirement

20 total semester hours required
2.000 GPA required in the minor

## Biochemistry

Website (http://www.northeastern.edu/biochemistry)

## Susan Powers-Lee, PhD

Professor and Program Director
203 Mugar Life Sciences Building
617.373.2852

Morline Gordon-Grier, Administrative Secretary,
m.gordongrier@northeastern.edu

Advising website (http://www.northeastern.edu/biochemistry)
Biochemistry focuses on the chemical processes occurring in the wide variety of living systems and touches essentially all aspects of our own lives. Our Northeastern program engages you in two integrated paths to a career in biochemistry: rigorous course work that is designed to prepare you to interpret the ever-expanding knowledge base and handson learning that positions you to leverage cutting-edge technology to solve fundamental problems in the chemistry of life.

After required basic course work in biochemistry, biology, chemistry, physics, and mathematics, our majors select elective courses that reflect many areas of biochemistry including neuroscience, bioorganic chemistry, stem cell and regenerative biology, microbial biotechnology, and systems biology and engineering.

In our interdisciplinary program, students take advantage of facultymentored research guided by investigators from bioengineering, biology, chemical engineering, chemistry, pharmaceutical sciences, physics, psychology, and other academic units.

Northeastern's signature co-op program provides complementary opportunities in world-class biotechnology companies, hospitals, and research facilities as close as Boston and as far as your global interest takes you.

Our biochemistry program prepares students to enter the job market directly or go on to graduate, medical, veterinary, dental, law, or business school. Our graduates are qualified for a wide range of careers that span academics, industry, government, and medicine, working in laboratory or clinical research, regulation and quality control, production, marketing, or information systems.

## Academic Progression Standards

After four semesters in the major, students must have a grade-point average (GPA) of at least 2.000 in all science and math courses and have completed at least six of the following courses:

| BIOL 1107 <br> and BIOL 1108 | Foundations of Biology <br> and Lab for BIOL 1107 | 5 |
| :--- | :--- | ---: |
| BIOL 2299 | Inquiries in Biological Sciences |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology <br> and Lab for BIOL 2301 | 4 |
| BIOL 2309 | Techniques in Biology: An Inquiry- <br> Based Lab | 5 |
| CHEM 1211 <br> and CHEM 1212 | General Chemistry 1 <br> and Lab for CHEM 1211 | 5 |
| CHEM 1214 <br> and CHEM 1215 | General Chemistry 2 <br> and Lab for CHEM 1214 | 5 |
| CHEM 2311 <br> and CHEM 2312 | Organic Chemistry 1 <br> and Lab for CHEM 2311 | 5 |
| CHEM 2313 <br> and CHEM 2314 | Organic Chemistry 2 <br> and Lab for CHEM 2313 | 5 |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 | 4 |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 | 4 |

Students 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, in biochemistry and chemistry, or in biochemistry and behavioral neuroscience due to similarity in course curricula. Students must maintain a minimum GPA of 2.000 to remain in this program.

## Programs

## Bachelor of Science (BS)

- Biochemistry (p. 461)


## Dual Degree

- Biochemistry/Biotechnology, BS/MS (p. 463)


## Biochemistry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Biochemistry Breadth Courses

A minimum GPA of 2.000 is required for the biochemistry breadth courses.

## Mathematics Courses

Complete one of the following options:
Option 1

| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| :---: | :---: | :---: |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| Option 2 |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| Physics Courses |  |  |
| Physics 1 |  |  |
| Complete a lecture and lab set for Physics 1: |  |  |
| PHYS 1171 and PHYS 1172 and PHYS 1173 | Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171 |  |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |  |
| Physics 2 |  |  |
| Complete a lecture and lab set for Physics 2: 5 |  |  |
| PHYS 1175 and PHYS 1176 and PHYS 1177 | Physics 2 for Bioscience and Bioengineering and Lab for PHYS 1175 and Interactive Learning Seminar for PHYS 1175 |  |
| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for PHYS 1155 |  |
| PHYS 1147 <br> and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 |  |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |  |

Biochemistry Major Requirements
Introduction to College
$\begin{array}{lll}\text { BIOC } 1000 & \text { Biochemistry at Northeastern } & 1\end{array}$

## Biology Foundations

Foundations
BIOL 1107
Foundations of Biology and Lab for BIOL 1107
and BIOL 1108
and

| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| :--- | :--- | ---: |
| Techniques |  | Techniques in Biology: An Inquiry- |
| BIOL 2309 | Based Lab |  |$\quad 4$

## Biology and Chemistry Advanced Electives

Complete three courses for a total of at least 12 semester hours from biology and chemistry with a minimum of one course from each department. Up to 4 semester hours may be research in a biology or chemistry faculty lab from the list "Research Option" below.

## Biology

BIOL 2311 to BIOL 5999
Chemistry
CHEM 2310 to CHEM 5999

## Research Option

Up to 4 semester hours may be research in a biology or
chemistry faculty lab:

| BIOL 4991 | Research |
| :--- | :--- |
| BIOL 4970 | Junior/Senior Honors Project 1 |
| CHEM 4901 | Undergraduate Research |
| CHEM 4750 | Senior Research |
| CHEM 4970 | Junior/Senior Honors Project 1 |

## 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, biochemistry and behavioral neuroscience, or biochemistry and chemistry is not permitted.

## Program Requirement

136 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 1107 | 4 BIOL 2299 | 4 Vacation | 0 Vacation | 0 |
| BIOL 1108 | 1 CHEM 1214 | 4 |  |  |
| CHEM 1211 | 4 CHEM 1215 | 1 |  |  |
| CHEM 1212 | 1 CHEM 1216 | 0 |  |  |
| CHEM 1213 | 0 ENGW 1111 | 4 |  |  |
| MATH 1251 | 4 MATH 1252 | 4 |  | 0 |
| Elective | 4 |  | 0 |  |
| BIOC 1000 | 1 | 17 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 2301 | 4 BIOL 2309 | 4 Vacation | 0 Co-op | 0 |
| BIOL 2302 | 1 CHEM 2313 | 4 |  |  |
| CHEM 2311 | 4 CHEM 2314 | 1 |  |  |
| CHEM 2312 | 1 PHYS 1151 | 3 |  |  |
| Elective | 4 PHYS 1152 | 1 |  |  |
| Elective | 4 PHYS 1153 | 1 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 BIOL 2323 | 4 BIOL or <br> CHEM <br> advanced elective | 5 Co-op | 0 |
|  | BIOL 2324 | 1 Elective | 4 |  |
|  | PHYS 1155 | 3 |  |  |
|  | PHYS 1156 | 1 |  |  |
|  | PHYS 1157 | 1 |  |  |
|  | CHEM 5620 | 3 |  |  |
|  | ENGW 3307 | 4 |  |  |
|  | 0 | 17 | 9 | 0 |


| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 0 CHEM 3431 | 4 BIOL or <br> CHEM <br> advanced <br> elective | 5 Co-op | 0 |


|  | BIOL or <br> CHEM <br> advanced elective | 5 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 0 | 18 | 9 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | $\begin{aligned} & 0 \text { CHEM } 4750 \\ & \text { or BIOL } 4701 \end{aligned}$ | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 12 |  |  |

Total Hours: 138

## Biochemistry/Biotechnology, BS/MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Requirements for Admission to the Program

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.

## Biochemistry Breadth Courses

A minimum GPA of 2.000 is required for the biochemistry breadth courses.

## Mathematics Courses

Complete Option 1 or Option 2:
Option 1

| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |
| :---: | :--- |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |
| Option 2 | Calculus 1 for Science and Engineering |
| MATH 1341 | Calculus 2 for Science and Engineering |

Physics Courses
Physics 1

PHYS 1171
and PHYS 1172
and PHYS 1173

Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171
Physics 2
PHYS 1175 and PHYS 1176 and PHYS 1177

Physics 2 for Bioscience and 5
Bioengineering
and Lab for PHYS 1175
and Interactive Learning Seminar for PHYS 1175

## Biochemistry Major Requirements

Introduction to Biochemistry

| BIOC 1000 | Biochemistry at Northeastern |
| :---: | :---: |
| Principles of Biology |  |
| Biology 1 |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 |
| Inquiries |  |
| BIOL 2299 | Inquiries in Biological Sciences |
| Molecular Biology |  |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 |
| BIOL 3407 | Molecular Cell Biology |
| General Chemistry 1 |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 |
| General Chemistry 2 |  |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 |
| Organic Chemistry 1 |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 |
| Organic Chemistry 2 |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 |

Additional Chemistry Courses

| CHEM $2331 \quad$ Bioanalytical Chemistry |
| :--- | :--- |


| and CHEM 2332 | and Lab for CHEM 2331 |
| :--- | :--- |
| CHEM 3431 | Physical Chemistry |


| and CHEM 3432 | and Lab for CHEM 3431 |  |
| :--- | :--- | :--- |
| CHEM 5620 | Protein Chemistry | 3 |

## Biochemistry Courses

BIOL 2323 and
and BIOL 2324

| Experiential Learning Introduction |  |
| :--- | :--- |
| EESC 2000 | Professional Development for Co-op |

## Experiential Learning

Two six-month undergraduate co-op experiences are required,
preferably in the biotechnology industry.

## Capstone

BIOL 4701
Biology Capstone
or CHEM 4770
Chemistry Capstone

5 Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Courses

## 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 behavioral neuroscience, biochemistry and biology, or biochemistry and chemistry is not permitted.

College of Arts and Sciences Distinguished Associate Professor and Interim Chair

134 Mugar Life Sciences Building
617.373.2260
617.373 .3724 (fax)

Advising website (http://www.tinyurl.com/bioadv)
The Department of Biology offers two majors, the BS in biology and the BS in cell and molecular biology. Both majors lay the groundwork for strong scientific training with basic course work in mathematics, chemistry, and physics, relevant to biology. In the biology major, students explore the organization and processes of life, from molecules and cells through organs and organ systems to populations, ecosystems, and evolution. The BS degree in cell and molecular biology offers a more focused program of study emphasizing processes operating at the cellular and molecular levels of biological systems. In both majors, students can select advanced electives to specialize in a subdiscipline of biology such as developmental biology, stem cell biology, microbiology, or physiology.

Our programs provide a wide range of relevant co-op opportunities in the renowned Boston-area biotechnology industry, hospitals, and research institutions, as well as across the country and at international sites.

There are a number of interdisciplinary opportunities involving biology: $B S$ in biochemistry; BS in behavioral neuroscience; BS in computer science and biology; BS in biology and geology; BS in biology and English; BS in biology and mathematics; BS in biology and political science; BS in biology/MS in biotechnology; BS/PhD in biology. Students interested in marine biology should investigate the degree programs offered by marine and environmental science. Double majors involving
any two of these biology programs are not available due to curricular overlap.

Our degree programs are designed to prepare students to enter the job market directly or to go on to graduate, medical, veterinary, dental, law, or business school. Our graduates are qualified for a wide array of career paths in industrial and clinical research in any of the life sciences, in teaching at all levels, in state or federal government agencies, in medicine and other healthcare-related professions. Premedical, predental, and other preprofessional students are urged to consult with the prehealth advising program early in their careers at Northeastern.

## 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 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| :---: | :---: | :---: |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Students who transfer into the biology major or cell and molecular 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 dismissa from the major. |  |  |

To graduate with a major in biology or cell and molecular biology, a student must have a cumulative GPA of 2.000 for all science and mathematics courses required for the major.

## Programs

Bachelor of Science (BS)

- Biology (p. 465)
- Cellular and Molecular Biology (p. 466)
- Biology and English (p. 467)
- Biology and Mathematics (p. 470)
- Biology and Political Science (p. 471)
- Computer Science and Biology (p. 473)


## Dual Degrees

- BS in Biology/MS in Biotechnology (p. 475)
- BS/PhD in Biology (p. 476)


## Biology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses for Biology

## Mathematics

MATH 1251 Calculus and Differential Equations for 4

## Statistics

ENVR $2500 \quad$ Biostatistics 5
and ENVR 2501 and Lab for ENVR 2500

## Chemistry

General Chemistry
CHEM 1211 General Chemistry 1 5
and CHEM 1212 and Lab for CHEM 1211
CHEM 1214 General Chemistry 2 5
and CHEM 1215 and Lab for CHEM 1214

## Organic Chemistry

CHEM $2311 \quad$ Organic Chemistry $1 \quad 5$
$\begin{array}{ll}\text { and CHEM } 2312 & \text { and Lab for CHEM } 2311 \\ \text { CHEM } 2313 & \text { Organic Chemistry } 2\end{array}$
and CHEM 2314 and Lab for CHEM 2313

## Physics

Physics 1
Complete one of the following lecture/lab pairs. PHYS 1145/ 5
PHYS 1146 is recommended:

| PHYS 1145 | Physics for Life Sciences 1 |
| :--- | :--- |
| and PHYS 1146 | and Lab for PHYS 1145 |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for <br> PHYS 1151 |
| PHYS 1161 <br> and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |
| Physics 2 |  |
| Complete one of the following lecture/lab pairs. PHYS 1147/ |  |

PHYS 1148 is recommended:

| PHYS 1147 | Physics for Life Sciences 2 |
| :--- | :--- |
| and PHYS 1148 | and Lab for PHYS 1147 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 | and Lab for PHYS 1155 |
| and PHYS 1157 | and Interactive Learning Seminar for <br> PHYS 1155 |

## Minors

- Biology (p. 477)

| PHYS 1165 | Physics 2 |
| :--- | :--- |
| and PHYS 1166 | and Lab for PHYS 1165 |

## Biology Major Requirements

| Introduction to College |  |  |
| :---: | :---: | :---: |
| BIOL 1000 | Biology at Northeastern | 1 |
| Experiential Learning Introduction |  |  |
| EESC 2000 | Professional Development for Co-op | 1 |
| Required Biology |  |  |
| Foundations |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| $\begin{aligned} & \text { BIOL } 2301 \\ & \text { and BIOL } 2302 \end{aligned}$ | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Biochemistry |  |  |
| BIOL 2323 and BIOL 2324 | and | 5 |

## Biology Major Electives

| Organismal and Population Biology |
| :--- |
| Complete one of the following: |
| BIOL 2321 <br> and BIOL 2322 |
| BIOL 2327 |$\quad$| Microbiology |
| :--- |
| and Lab for BIOL 2321 |$\quad 4-5$

BIOL 2321 to BIOL 3999
BIOL 5000 to BIOL 5999
EEMB 2290 to EEMB 5515
EEMB 5520 to EEMB 5534
EEMB 5548 to EEMB 5569
ENVR 5242 Ancient Marine Life
One of the three intermediate/advanced electives can be a research course:

| BIOL 4991 | Research |
| :--- | :--- |
| BIOL 4970 | Junior/Senior Honors Project 1 |
| BIOL 4971 | Junior/Senior Honors Project 2 |

## Biology Capstone

BIOL 4701
Biology Capstone

## Biology Major Credit/GPA Requirement

Complete 81 semester hours in the major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in biology and cell and molecular biology, biology and biochemistry, biology and behavioral neuroscience, or biology and marine biology is not permitted.

## Program Requirement

136 total semester hours required

## Cell and Molecular Biology, BS

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: "TBD" stands for "to be determined."

## Breadth Courses For Biology

Mathematics

| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| :---: | :---: | :---: |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| Physics 1 |  |  |
| Complete one of the following lecture/lab pairs. PHYS1145/ PHYS1146 is recommended. |  | 5 |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| Physics 2 |  |  |
| Complete one of th PHYS1148 is recom | following lecture/lab pairs. PHYS1147/ ended. | 5 |

\(\left.$$
\begin{array}{ll}\text { PHYS 1147 } \\
\text { and PHYS 1148 }\end{array}
$$ \quad \begin{array}{l}Physics for Life Sciences 2 <br>

and Lab for PHYS 1147\end{array}\right]\)| PHYS 1155 |
| :--- |
| Physics for Engineering 2 <br> and PHYS 1156 <br> and PHYS 1157 |
| and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 |
| PHYS 1165 Physics 2 <br> and PHYS 1166 and Lab for PHYS 1165 |
| Statistics <br> ENVR 2500 |

## Cell and Molecular Biology Major Requirements

Introduction to College
BIOL 1000 Biology at Northeastern 1
Introduction to Experiential Learning
EESC $2000 \quad$ Professional Development for Co-op

## Required Biology

Foundations

| BIOL 1107 | Foundations of Biology |
| :--- | :--- |
| and BIOL 1108 | and Lab for BIOL 1107 |
| Inquiries |  |


| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| :---: | :---: | :---: |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Genetics |  |  |
| $\begin{aligned} & \text { BIOL } 2301 \\ & \text { and BIOL } 2302 \end{aligned}$ | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Biochemistry |  |  |
| BIOL 2323 | and | 5 |

and BIOL 2324
Molecular Biology
Complete both of the following:

| BIOL 3407 | Molecular Cell Biology | 4 |
| :--- | :--- | :--- |
| BIOL 5591 | Advanced Genomics | 4 |

Intermediate/Advanced Biology Electives
Complete three of the following:
\(\left.$$
\begin{array}{|ll|}\hline \text { BIOL 2321 } \\
\text { and BIOL 2322 }\end{array}
$$ \quad \begin{array}{l}Microbiology <br>

and Lab for BIOL 2321\end{array}\right]\)| BIOL 3601 | Neural Systems and Behavior |
| :--- | :--- |
| BIOL 3603 | Mammalian Systems Physiology |
| BIOL 3605 | Developmental Neurobiology |
| BIOL 5306 | Biological Clocks |
| BIOL 5307 | Biological Electron Microscopy |
| BIOL 5499 | Plant Biotechnology |
| BIOL 5533 | Vertebrate Microanatomy |
| BIOL 5541 | Endocrinology |
| BIOL 5543 | Stem Cells and Regeneration |
| BIOL 5549 | Microbial Biotechnology |
| BIOL 5569 | Advanced Microbiology |
| BIOL 5571 | Microbial Ecology |
| BIOL 5573 | Medical Microbiology |
| BIOL 5577 |  |
| BIOL 5581 | Biological Imaging |


| BIOL 5583 | Immunology |
| :--- | :--- |
| BIOL 5585 | Evolution |
| BIOL 5587 | Comparative Neurobiology |
| BIOL 5593 | Cell and Molecular Biology of Aging |
| EEMB 5530 | Molecular Ecology and Evolution |
| Research |  |
| One of the three Intermediate/Advanced Electives can be a <br> research course: |  |
| BIOL 4991 | Research |
| BIOL 4970 | Junior/Senior Honors Project 1 |
| BIOL 4971 | Junior/Senior Honors Project 2 |

## Biology Capstone

BIOL 4701
Biology Capstone

## Cell and Molecular Biology Major Credit/GPA Requirement

Complete 84 semester hours in the major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in cell and molecular biology and biology, biochemistry or behavioral neuroscience is not permitted.

## Program Requirement

136 total semester hours required

## Biology and English, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses for Biology

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 | 4 |
| Statistics |  | 5 |
| ENVR 2500 <br> and ENVR 2501 | Biostatistics <br> and Lab for ENVR 2500 | 5 |
| Chemistry <br> General Chemistry | General Chemistry 1 <br> CHEM 1211 <br> and CHEM 1212 | and Lab for CHEM 1211 <br> CHEM 1214 <br> General Chemistry 2 CHEM 1215 |
| and Lab for CHEM 1214 |  |  |

Organic Chemistry

| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| :---: | :---: | :---: |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| Physics 1 |  |  |
| Complete one of the following lecture/lab pairs. PHYS 1145/ PHYS 1146 are recommended: |  | 5 |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| Physics 2 |  |  |
| Complete one of the PHYS 1148 are reco | following lecture/lab pairs. PHYS 1147/ mended: | 5 |
| PHYS 1147 <br> and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 |  |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for PHYS 1155 |  |
| PHYS 1165 and PHYS 1166 | Physics 2 and Lab for PHYS 1165 |  |

## Biology Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introduction to College |  |  |
| BIOL 1000 | Biology at Northeastern | 1 |
| or ENGL 1000 | English at Northeastern |  |


| Experiential Learning Introduction |  |  |
| :--- | :--- | :--- |
| EESC 2000 | Professional Development for Co-op | 1 |


| Required Biology <br> Foundations |  |
| :--- | :--- | :--- |
| BIOL 1107 Foundations of Biology <br> and BIOL 1108 and Lab for BIOL 1107 | 5 |


| Inquiries  <br> BIOL 2299 Inquiries in Biological Sciences <br> Genetics  | 4 |  |
| :--- | :--- | :---: |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology <br> and Lab for BIOL 2301 | 5 |
| Techniques | Techniques in Biology: An Inquiry- <br> BIOL 2309 | 4 <br> Biochemistry |
| BIOL 2323 | and | 5 |

and BIOL 2324

## Biology Elective

| Code | Title | Hours |
| :--- | :--- | ---: |
| Organismal and Population Biology | $4-5$ |  |
| Complete one of the following: | 5 |  |
| BIOL 2321 | Microbiology |  |
| and BIOL 2322 | and Lab for BIOL 2321 |  |


| BIOL 2327 | Human Parasitology | 4 |
| :--- | :--- | ---: |
| EEMB 2302 Ecology <br> and EEMB 2303  | and Lab for EEMB 2302 | 5 |
| EEMB 2400 | Introduction to Evolution | 4 |
| EEMB 2616 | Invertebrate Zoology |  |
| and EEMB 2617 | and Lab for EEMB 2616 | 5 |
| EEMB 2618 Vertebrate Zoology <br> and EEMB 2619 and Lab for EEMB 2618 | 5 |  |
| EEMB 2700 Marine Biology <br> and EEMB 2701 and Lab for EEMB 2700 | 5 |  |

## English Requirements

Code Title Hours

## English Course-Level Requirements

Two of the courses chosen from the lists below must be numbered 3000-4999.

## Foundational Courses

ENGL 1400 Introduction to Literary Studies 4

ENGL 1700 Global Literature to 15004
ENGL 1160 Introduction to Rhetoric 4
or ENGL 1410 Introduction to Writing Studies

## Diversity

This course may also be used to fulfill an additional English requirement below.

Complete one of the following:

| ENGL 2296 | Early African-American Literature |
| :--- | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 2450 3685 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| ENGL 2460 | Postcolonial Literature |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |

Pre-Nineteenth-Century Literature
Complete one of the following: 4

| ENGL 1600 | Introduction to Shakespeare |
| :--- | :--- |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American |
| ENGL 2296 | Literature |
| ENGL 3151 | Topics in Early Literatures Abroad |
| ENGL 3607 | Chaucer |
| ENGL 3618 | Milton |


| ENGL 3678 | Bedrooms and Battlefields: Hebrew |
| :---: | :---: |
|  | Bible and the Origins of Sex, Gender, and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| ENGL 4020 | Topics in 17th- and 18th-Century Literatures |
| Nineteenth-Century Literature |  |
| Complete one of the | following: 4 |
| ENGL 2260 | Romantic Poetry |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |
| Twentieth- and Twenty-First-Century Literature |  |
| Complete one of the | following: 4 |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| $\text { ENGL } 2610$ | Contemporary Israeli Literature and Art Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century Major Figure |
| ENGL 4060 | Topics in 20th- and 21 st-Century Literatures |
| Theories and Methods |  |
| Complete one of the following: 4 |  |
| ENGL 1160 | Introduction to Rhetoric |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching Writing |
| ENGL 4400 | Opening the Archive |
| ENGL 4100 | Topics in Literary Criticism 4 |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and Linguistics |
| LING 2350 | Linguistic Analysis |
| LING 3450 | Syntax |


| LING 3452 | Semantics |  |
| :---: | :---: | :---: |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |
| Comparative Literature |  |  |
| Complete one of the following: |  | 4 |
| ENGL 1120 | Trouble in Utopia |  |
| ENGL 1130 | Animals, Objects, Humans |  |
| ENGL 1450 | Reading and Writing in the Digital Age |  |
| ENGL 1500 | British Literature to 1800 |  |
| ENGL 1501 | British Literature 1800 to Present |  |
| ENGL 1502 | American Literature to 1865 |  |
| ENGL 1503 | American Literature 1865 to Present |  |
| ENGL 1701 | Global Literature 1500 to Present |  |
| ENGL 2370 | The Modern Short Story |  |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| ENGL 4070 | Topics in Genre | 4 |
| ENGL 4684 | Topics in Postcolonial Literature | 4 |
| ENGL 4688 | Topics in Comparative Textual Studies | 4 |
| Writing |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |

## Integrative Courses

Code Title
Integrative English Course

Hours

| Complete one of the following: |
| :--- |
| ENGL 2520 Science Fiction <br> ENGL 3427 The Literature of Science <br> ENGL 3340 Technologies of Text <br> Integrative General Biological Sciences Course 4 <br> Complete one of the following:  <br> PSYC 3464 Psychology of Language <br> PSYC 4520 Language and the Brain <br> PSYC 4522 Psychology of Reading <br> SOCL 3441 Sociology of Health and Illness <br> SOCL 3485 Environment, Technology, and Society |

## Capstone Requirement

Complete one of the following capstone options:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Biology Capstone | Biology Capstone | 4 |
| BIOL 4701 |  | 4 |
| English Capstone <br> ENGL 4710 <br> or ENGL 4720 | Capstone Seminar <br> Capstone Project |  |

Biology and English Combined-Major GPA Requirement
Minimum 2.000 GPA required in all BIOL courses
Minimum 2.000 GPA required in all ENGL courses

## Program Requirement

128 total semester hours required

## Biology and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Biology Major Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Introduction to College |  |  |
| BIOL 1000 or MATH 1000 | Biology at Northeastern Mathematics at Northeastern | 1 |
| Required Biology |  |  |
| Foundations |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |


| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| :---: | :---: | :---: |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Biochemistry |  |  |
| BIOL 2323 and BIOL 2324 | and | 5 |
| Organismal and Population Biology |  |  |
| Complete one of the | following: | 4-5 |
| $\begin{aligned} & \text { BIOL } 2321 \\ & \text { and BIOL } 2322 \end{aligned}$ | Microbiology and Lab for BIOL 2321 |  |
| BIOL 2327 | Human Parasitology |  |
| EEMB 2302 <br> and EEMB 2303 | Ecology and Lab for EEMB 2302 |  |
| EEMB 2400 | Introduction to Evolution |  |
| EEMB 2610 and EEMB 2611 | Plant Biology and Lab for EEMB 2610 |  |
| EEMB 2616 and EEMB 2617 | Invertebrate Zoology and Lab for EEMB 2616 |  |
| EEMB 2618 and EEMB 2619 | Vertebrate Zoology and Lab for EEMB 2618 |  |
| EEMB 2700 <br> and EEMB 2701 | Marine Biology and Lab for EEMB 2700 |  |

## Mathematics Major Requirements

Code Title Hours

Calculus 1
MATH 1341 Calculus 1 for Science and Engineering 4 or MATH 1251 Calculus and Differential Equations for Biology 1

## Calculus 2 and Calculus 3

| MATH 1342 or MATH 1252 | Calculus 2 for Science and Engineering <br> Calculus and Differential Equations for Biology 2 | 4 |
| :---: | :---: | :---: |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Physics |  |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 | 5 |
| Required Mathematics Courses |  |  |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |

## Mathematics Electives

Complete three of the following:
MATH $2331 \quad$ Linear Algebra

MATH 3001 to MATH 4899
Additional Requirements
Code Title Hours

| Experiential Learning Introduction |  |  |
| :--- | :--- | ---: |
| EESC 2000 | Professional Development for Co-op | 1 |
| MATH 3000 | Co-op and Experiential Learning <br> Reflection Seminar 1 | 1 |
| or MATH 4000 | Co-op and Experiential Learning Reflection <br> Seminar 2 |  |

Biology/Mathematics Integrative Courses
Complete two of the following:

| CS 2500 | Fundamentals of Computer Science 1 |
| :--- | :--- |
| and CS 2501 | and Lab for CS 2500 |
| CS 2510 | Fundamentals of Computer Science 2 |
| and CS 2511 | and Lab for CS 2510 |
| BIOL 3405 | Neurobiology |
| BIOL 5569 | Advanced Microbiology |
| BIOL 5581 | Biological Imaging |
| BIOL 5591 | Advanced Genomics |
| MATH 4581 | Statistics and Stochastic Processes |
| MATH 7343 | Applied Statistics |
| BINF 6308 | Bioinformatics Computational Methods |

BINF 6309 Bioinformatics Computational Methods 2
Advanced Writing in the Disciplines
ENGW $3307 \quad$ Advanced Writing in the Sciences 4

## Capstone

Complete one of the following: 4

| BIOL 4701 | Biology Capstone |
| :--- | :--- |
| MATH 4020 | Research Capstone |
| MATH 4025 | Applied Mathematics Capstone |
| MATH 5131 | Introduction to Mathematical Methods <br> and Modeling |

## Biology and Mathematics Combined-Major Credit/GPA Requirements

Complete 93 semester hours in the major with a cumulative GPA of 2.000 .

## Program Requirements

143 total semester hours required

## Biology and Political Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Biology Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| BIOL 1000 or POLS 1000 | Biology at Northeastern <br> Political Science at Northeastern | 1 |
| Biology |  |  |
| Foundations |  |  |
| BIOL 1107 <br> and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| $\begin{aligned} & \text { BIOL } 2301 \\ & \text { and BIOL } 2302 \end{aligned}$ | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Biochemistry |  |  |
| BIOL 2323 and BIOL 2324 | and | 5 |
| Organismal and Population Biology |  |  |
| Complete one of the following: |  | 4-5 |
| BIOL 2321 and BIOL 2322 | Microbiology and Lab for BIOL 2321 |  |
| BIOL 2327 | Human Parasitology |  |
| EEMB 2302 <br> and EEMB 2303 | Ecology and Lab for EEMB 2302 |  |
| EEMB 2400 | Introduction to Evolution |  |
| EEMB 2616 and EEMB 2617 | Invertebrate Zoology and Lab for EEMB 2616 |  |
| EEMB 2618 and EEMB 2619 | Vertebrate Zoology and Lab for EEMB 2618 |  |
| EEMB 2700 and EEMB 2701 | Marine Biology and Lab for EEMB 2700 |  |
| Mathematics |  |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 | 5 |


| PHYS 1147  <br> and PHYS 1148 Physics for Life Sciences 2 <br> and Lab for PHYS 1147  | 5 |  |
| :--- | :--- | ---: |
| Political Science Major Requirements | Mours |  |
| Code | Title |  |
| Core Courses in Political Science | 4 |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations |  |
| Statistics |  | $4-5$ |
| Complete one of the following: |  |  |


| POLS 2400 | Quantitative Techniques |
| :--- | :--- |
| ENVR 2500 | Biostatistics |
| and ENVR 2501 | and Lab for ENVR 2500 |

Political Thought
Complete one of the following:

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Upper-Division Electives

| Complete four of the following: |  |
| :--- | :--- |
| POLS 2340 | Business and Government |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 2399 | Research Methods in Political Science |
| POLS 3309 | Lesbian, Gay, Bisexual, and <br>  <br> Transgender Issues in Public Policy <br> POLS 3324Law and Society  <br> POLS 3409 Global Governance <br> POLS 3412 Homeland Security Policy and Politics <br> POLS 3410 Nontraditional Security Issues |

## Political Science Elective

Complete one additional course in political science numbered 4
2300 or above.

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. ).

- Law and Legal Studies
- Public Policy
- Security Studies


## Integrative Course

Note: Science, Technology, and Public Policy (POLS 2390) cannot be used both as an integrative course and as an elective above.

| Code | Title | Hours |
| :--- | :--- | ---: |
| POLS 2390 | Science, Technology, and Public Policy | 4 |
| or POLS 2395 | Environmental Politics and Policy |  |

## Concentrations

CONCENTRATION IN LAW AND LEGAL STUDIES
Code Title Hours

Complete four of the following: 16

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

CONCENTRATION IN PUBLIC POLICY
Code $\quad$ Title Hours

| Core Requirement |  | 4 |
| :--- | :--- | :--- |
| POLS 3307 | Public Policy and Administration |  |

## Electives

Complete three of the following: 12
POLS $2334 \quad$ Bureaucracy and Government Organizations
POLS 2335 Budgeting and Taxation
POLS $2340 \quad$ Business and Government
POLS 2345 Urban Policies and Politics
POLS 2350 State and Local Politics

| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| :--- | :--- |

POLS 2385 U.S. Health and Welfare Policy
POLS 2390 Science, Technology, and Public Policy
POLS 2395 Environmental Politics and Policy
POLS 3315 Interest Groups and Public Policy
POLS 3402 Survey Research and Polling
POLS 3410 Nontraditional Security Issues
POLS 3412 Homeland Security Policy and Politics
POLS 3425 U.S. Foreign Policy
POLS 4948 Community-Based Research Practicum
CONCENTRATION IN SECURITY STUDIES

| Code <br> Complete four of the following: | Hours |  |
| :--- | :--- | ---: |
| POLS 3408 | International Security | 16 |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3420 | U.S. National Security Policy |  |
| POLS 3423 | Terrorism and Counterterrorism |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3430 | Revolution, Civil War, and Insurrection |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 4918 | Model NATO |  |

## Program Requirement

128 total semester hours required

## Computer Science and Biology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code <br> Computer Science Overview | Hours |  |
| :--- | :--- | ---: |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 2 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation 2 |  |
| Computer Science Fundamental Courses |  |  |


| Computer Science Required Courses |  |  |
| :--- | :--- | ---: |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation (integrative <br> course) | 4 |
| CS 4500 | Software Development |  |
| CS 4800 | Algorithms and Data (integrative <br> course) | 4 |
| Senior Seminar | Senior Seminar | 4 |
| CS 4000 |  | 1 |

${ }^{1}$ Students entering through the biology department may take BIOL 1000.
${ }^{2}$ Students entering through the biology department may take EESC 2000.

## Biology Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Foundations of Biology | 5 |  |
| BIOL 1107 | Foundations of Biology |  |
| and BIOL 1108 and Lab for BIOL 1107 |  |  |
| Inquiries |  | 4 |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |

## Molecular Biology

$\begin{array}{lll}\text { BIOL } 2301 & \text { Genetics and Molecular Biology } & 5\end{array}$
Techniques in Biology

| BIOL 2309 | Techniques in Biology: An Inquiry- <br> Based Lab |
| :--- | :--- | :--- |

## Chemistry

CHEM 1211 General Chemistry 1 5
and CHEM 1212 and Lab for CHEM 1211
and CHEM 1213 and Recitation for CHEM 1211
CHEM 1214
General Chemistry 2
5
and CHEM 1215 and Lab for CHEM 1214
and CHEM 1216 and Recitation for CHEM 1214
CHEM $2311 \quad$ Organic Chemistry $1 \quad 5$
and CHEM 2312 and Lab for CHEM 2311
CHEM 2313 Organic Chemistry 2 5
and CHEM 2314 and Lab for CHEM 2313
Biology Capstone
BIOL 4701 Biology Capstone 4

Intermediate and Advanced Biology Electives
Complete two biology courses (with corequisite labs if 9-10
offered). Choose one of these two courses from the following list:

| BIOL 2321 <br> and BIOL 2322 | Microbiology <br> and Lab for BIOL 2321 |
| :--- | :--- |
| BIOL 2323 <br> and BIOL 2324 | and |
| EEMB 2302 <br> and EEMB 2303 | Ecology |
| and Lab for EEMB 2302 |  |
| EEMB 2616 | Invertebrate Zoology |
| and EEMB 2617 | and Lab for EEMB 2616 |
| EEMB 2618 <br> and EEMB 2619 | Vertebrate Zoology |
| and Lab for EEMB 2618 |  |
| EEMB 2700 | Marine Biology |
| and EEMB 2701 | and Lab for EEMB 2700 |

Choose the second elective from the following list: 4-5
BIOL 2311 or above
Biology Integrative Course
Complete one of the following: 4-5

| BINF 6308 | Bioinformatics Computational Methods |
| :--- | :--- |
| BIOL 3407 | Molecular Cell Biology |
| BIOL 3603 | Mammalian Systems Physiology |
| BIOL 5581 | Biological Imaging |
| BIOL 5587 | Comparative Neurobiology |
| EEMB 5530 | Molecular Ecology and Evolution |
| and EEMB 5531 | and Lab for EEMB 5530 |
| EEMB 5548 | Sociobiology |

## Mathematics Requirements

Complete two calculus courses with a grade of C - or higher, and complete one probability and statistics course:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  |  |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 | 4 |


| MATH 1252 | Calculus and Differential Equations for Biology 2 | 4 |
| :---: | :---: | :---: |
| Probability and Statistics |  |  |
| Complete one of the following: |  | 4-5 |
| MATH 3081 | Probability and Statistics |  |
| ENVR 2500 and ENVR 2501 | Biostatistics and Lab for ENVR 2500 |  |
| Computing and Social Issues Requirement |  |  |
| Code | Title | Hours |
| Complete one of the following: |  | 4 |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |


| English Requirements <br> Code <br> College Writing | Title | Hours |
| :--- | :--- | ---: |
| ENGW 1111 First-Year Writing |  |  |
| Advanced Writing in the Disciplines  <br> ENGW 3302 Advanced Writing in the Technical <br> Professions <br> Interdisciplinary Advanced Writing in the <br> Disciplines | 4 |  |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses.

## Required General Electives

Complete five general electives.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

140 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 BIOL 2299 | 4 |  |  |
| BIOL 1107 | 4 CHEM 1214 | 4 |  |  |
| BIOL 1108 | 1 CHEM 1215 | 1 |  |  |


| CHEM 1211 | 4 CHEM 1216 | 0 |  |
| :--- | :--- | :--- | :--- |
| CHEM 1212 | 1 ENGW 1111 | 4 |  |
| CHEM 1213 | 0 |  |  |
| CS 1200 | 1 |  |  |
| CS 1801 | 0 |  | 0 |
|  | 20 | 18 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 4800 | 4 Vacation | 0 Co-op | 0 |
| CHEM 2311 | 4 BIOL 2309 | 4 |  |  |
| CHEM 2312 | 1 CHEM 2313 | 4 |  |  |
| CS 2800 | 4 CHEM 2314 | 1 |  |  |
| CS 2801 | 1 MATH 1251 | 4 |  | 0 |
| BIOL 2301 | 4 CS 1210 | 1 |  | 0 |
| BIOL 2302 | 1 |  | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3800 | 4 ENGW 3302 | 4 Co-op | 0 |
|  | BIOL elective | $4-5$ Elective | 4 |  |
| MATH 1252 | 4 |  |  |  |
|  | Elective | 4 |  | 0 |
| 0 | $16-17$ | 8 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3200 | 4 Elective | 4 Co-op | 0 |
|  | BIOL elective | $4-5$ Elective | 4 |  |
| MATH 3081 | 4 |  |  |  |
|  | SOCL 4528 | 4 |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | BIOL elective | $4-5$ |
|  | BIOL 4701 | 4 |
|  | Elective | 4 |
|  | 0 | $17-18$ |

Total Hours: 140-143

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$


| CS 1801 | 0 |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
| 20 | 18 | 0 | 0 |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BIOL 2301 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| BIOL 2302 | 1 |  |  |  |
| CHEM 2311 | 4 |  |  |  |
| CHEM 2312 | 1 |  |  |  |
| CS 2800 | 4 |  | 0 | 0 |
| CS 2801 | 1 |  |  |  |
| CS 3500 | 4 |  |  |  |
| CS 1210 | 1 | 0 |  |  |
|  | 20 |  |  |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| BIOL 2309 | 4 |  | ENGW 3302 | 4 |
| CHEM 2313 | 4 |  |  |  |
| CHEM 2314 | 1 |  |  |  |
| MATH 1251 | 4 | 0 | 0 | 8 |
|  | 17 |  |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| BIOL elective | $4-5$ |  | Elective | 4 |
| MATH 1252 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | $16-17$ | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| CS 3200 | 4 CS 4500 | 4 |
| MATH 3081 | 4 CS 4000 | 1 |
| BIOL elective | $4-5$ BIOL 4701 | 4 |
| SOCL 4528 | 4 BIOL elective | $4-5$ |
| Elective |  |  |
|  | $16-17$ | 4 |

Total Hours: 140-143

## Biology, BS/Biotechnology, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Application Procedures

Students should apply for the BS/MS PlusOne program during their fifth academic semester. Before applying, students must have completed 80 semester hours and one co-op experience.

## Breadth Courses for Biology

## Mathematics

| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| :---: | :---: | :---: |
| Statistics |  |  |
| ENVR 2500 and ENVR 2501 | Biostatistics and Lab for ENVR 2500 | 5 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| Complete one of the following lecture/lab pairs. PHYS1145 and PHYS1146 are recommended: |  |  |
| Physics 1 |  |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 <br> and Lab for PHYS 1151 <br> and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| Physics 2 |  |  |
| Complete one of the and PHYS1148 are | following lecture/lab pairs. PHYS1147 commended: | 5 |


| PHYS 1147 | Physics for Life Sciences 2 |
| :--- | :--- |
| and PHYS 1148 | and Lab for PHYS 1147 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 <br> and PHYS 1157 | and Interactive Learning Seminar for <br> and <br> PHYS 1155 |
| PHYS 1165 Physics 2 <br> and PHYS 1166 and Lab for PHYS 1165 |  |

## Biology Major Requirements

Introduction to College
BIOL 1000 Biology at Northeastern 1

## Experiential Learning Introduction

| EESC 2000 | Professional Development for Co-op | 1 |
| :---: | :---: | :---: |
| Required Biology |  |  |
| Foundations |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| BIOL 2301 and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Biochemistry |  |  |
| $\begin{aligned} & \text { BIOL } 2323 \\ & \text { and BIOL } 2324 \end{aligned}$ | and | 5 |
| Cell Biology |  |  |
| BIOL 3407 | Molecular Cell Biology | 4 |
| Experiential Lear |  |  |

Two undergraduate co-op experiences are required, preferably in the biotechnology industry.

## Biology Major Elective

Organismal and Population Biology

| Complete one of the following: | $4-5$ |
| :--- | :--- |
| BIOL 2321 <br> and BIOL 2322 | Microbiology <br> and Lab for BIOL 2321 |
| BIOL 2327 | Human Parasitology |
| EEMB 2302 <br> and EEMB 2303 | Ecology <br> and Lab for EEMB 2302 |
| EEMB 2400 | Introduction to Evolution |
| EEMB 2616 | Invertebrate Zoology |
| and EEMB 2617 | and Lab for EEMB 2616 |
| EEMB 2618 Vertebrate Zoology <br> and EEMB 2619 and Lab for EEMB 2618 <br> EEMB 2700 Marine Biology <br> and EEMB 2701 and Lab for EEMB 2700 |  |

## Biology Capstone

BIOL 4701 Biology Capstone

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

| BIOL 5591 | Advanced Genomics | 4 |
| :--- | :--- | :---: |
| BIOT 5120 | Introduction to Biotechnology | 3 |
| BIOT 6214 | Experimental Design and Biometrics | 2 |
| BIOT 5219 | The Biotechnology Enterprise | 2 |
| BIOT 5631 | Cell Culture Processes for <br> Biopharmaceutical Production | 3 |
| CHEM 5620 | Protein Chemistry | 3 |

## Biology Major Credit/GPA Requirements

Complete 81 semester hours for the major with a cumulative GPA of 2.000 .

1

## Program Requirements

Minimum 3.000 GPA required in all graduate courses

## Biology, BS/PhD

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Breadth Courses for Biology

## Mathematics

| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| :---: | :---: | :---: |
| Statistics |  |  |
| ENVR 2500 and ENVR 2501 | Biostatistics <br> and Lab for ENVR 2500 | 5 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 <br> and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |

Organic Chemistry
CHEM 2311 Organic Chemistry 1 5
and CHEM 2312 and Lab for CHEM 2311
CHEM 2313 Organic Chemistry 2 5
and CHEM 2314 and Lab for CHEM 2313

## Physics

Physics 1
Complete one of the following lecture/lab pairs. PHYS 1145/ 5
PHYS 1146 is recommended:

| PHYS 1145 | Physics for Life Sciences 1 |
| :--- | :--- |
| and PHYS 1146 | and Lab for PHYS 1145 |
| PHYS 1151 | Physics for Engineering 1 |
| and PHYS 1152 | and Lab for PHYS 1151 |
| and PHYS 1153 | and Interactive Learning Seminar for |
| PHYS 1151 |  |

Physics 2
Complete one of the following lecture/lab pairs. PHYS 1147/ 5
PHYS 1148 is recommended:

| PHYS 1147 | Physics for Life Sciences 2 |
| :--- | :--- |
| and PHYS 1148 | and Lab for PHYS 1147 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 <br> and PHYS 1157 | and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 |
| PHYS 1165 | Physics 2 |
| and PHYS 1166 | and Lab for PHYS 1165 |


| Biology Major Requirements |  |  |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| BIOL 1000 | Biology at Northeastern | 1 |
| Experiential Learning Introduction |  |  |
| EESC 2000 | Professional Development for Co-op | 1 |
| Biology |  |  |
| Foundations |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| BIOL 2301 | Genetics and Molecular Biology | 5 |


| and BIOL 2302 | and Lab for BIOL 2301 |
| :--- | :--- |
| Techniques |  |
| BIOL 2309 | Techniques in Biology: An Inquiry- |


|  | Based Lab |  |
| :--- | :--- | ---: |
| Biochemistry |  | 5 |
| BIOL 2323 | and | 5 |

## Biology Major Electives

Organismal and Population Biology
Complete one of the following:

| BIOL 2321 | Microbiology |
| :--- | :--- |
| and 2321 | and Microbiology |
| BIOL 2327 | Human Parasitology |
| EEMB 2302 <br> and EEMB 2303 | Ecology <br> and Lab for EEMB 2302 |
| EEMB 2400 | Introduction to Evolution |
| EEMB 2616 <br> and EEMB 2617 | Invertebrate Zoology <br> and Lab for EEMB 2616 |
| EEMB 2618 <br> and EEMB 2619 | Vertebrate Zoology <br> and Lab for EEMB 2618 |
| EEMB 2700 Marine Biology <br> and EEMB 2701 and Lab for EEMB 2700 |  |
| Intermediate and Advanced Biology |  |
| Complete one 4-5-semester-hour course from the following: | $4-5$ |

BIOL 2321 to BIOL 3999
BIOL 5000 to BIOL5999
EEMB 2290 to EEMB 5515
EEMB 5520 to EEMB 5534
EEMB 5548 to EEMB 5569
ENVR 5242 Ancient Marine Life
BIOL 4991 Research
BIOL 4970 Junior/Senior Honors Project 1

## Biology Capstone

BIOL 4701
Biology Capstone
4

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.500 GPA required in all graduate courses

## Electives

Complete two courses as follows:
Any 5000-level or 6000-level BIOL course

## Biology Major Credit/GPA Requirements

Complete 81 semester hours in the major with a cumulative GPA of 2.000 .

Due to overlap in course content, double majoring in biology and cell and molecular biology, biology and biochemistry, or biology and behavioral neuroscience is not permitted.

## Program Requirements

136 total semester hours required for the bachelor's degree Minimum 3.500 GPA required in all graduate courses

## Biology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Restrictions

This minor is not available for students who major in biology,
biochemistry, behavioral neuroscience, cell and molecular biology, marine biology, or any combined major that involves biology.

## Required Biology Courses

Complete five biology courses for a total of at least 23 semester hours. Three of the five courses must be at the 2000 level or above. Three of the five courses must contain a lab corequisite.

Options:
BIOL 2000 to BIOL 3999
BIOL 5000 to BIOL 5999
EEMB 2290 to EEMB 5515
EEMB 5520 to EEMB 5534
EEMB 5548 to EEMB 5569

## Science Course

Complete one course from the BIOL, CHEM, EEMB, ENVR, or PHYS subject areas.

## GPA Requirement

2.000 GPA required in the minor

## Chemistry and Chemical Biology

Website (http://www.northeastern.edu/chemistry)
Michael Pollastri, PhD
Associate Professor and Interim Chair
102 Hurtig Hall
617.373.2383/617.373.2822
617.373 .8795 (fax)

Kathleen B. Dioli, Assistant Cooperative Education Coordinator and Head Advisor, k.cameron@northeastern.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 developing conceptual understanding and problem-solving abilities in the fundamental chemical subfields of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry; gaining a foundation of physics and mathematics and integrating these areas with chemical principles; performing quantitative measurements; synthesizing and characterizing compounds; learning proper laboratory practices, including safety; developing proficiency with modern instruments and computers for data acquisition and analysis; and learning 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 BS/MS 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 <br> and CHEM 1218 | General Chemistry 1 for Chemical <br> Science Majors <br> and Lab for CHEM 1217 | 6 |
| :--- | :--- | :--- |
| CHEM 1220 <br> and CHEM 1221 | General Chemistry 2 for Chemical <br> Science Majors <br> and Lab for CHEM 1220 | 6 |
| CHEM 2315 <br> and CHEM 2316 | Organic Chemistry 1 for Chemistry <br> Majors <br> and Lab for CHEM 2315 | 6 |
| CHEM 2317 <br> and CHEM 2318 | Organic Chemistry 2 for Chemistry <br> Majors <br> and Lab for CHEM 2317 | 6 |

CHEM 2331
and CHEM 2332
Bioanalytical Chemistry

Students who transferred into the major must, after two semesters, have completed 32 semester hours and the following courses with grades of B or better and have a QPA of at least 2.750 in all chemistry, math, and physics courses.

CHEM 1211
General Chemistry 1
and CHEM 1212 and Lab for CHEM 1211
CHEM 1214 General Chemistry 2
and CHEM 1215 and Lab for CHEM 1214
or equivalent courses

## Programs

## Bachelor of Science (BS)

- Chemistry (p. 478)
- Environmental Geology and Chemistry (p. 480)


## Dual Degree

- Chemistry, BS/MS (p. 481)


## Minor

- Chemistry (p. 482)


## Chemistry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Chemistry Major Technical Requirements

## Mathematics

| MATH 1341 | Calculus 1 for Science and Engineering |
| :--- | :--- | ---: |
| MATH 1342 | Calculus 2 for Science and Engineering |
| Physics 1 |  |$\quad 4$

## Chemistry Major Requirements

## General Chemistry 1



Total Hours: 138

## Environmental Geology and Chemistry, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Environmental <br> Code <br> Codogy Breadth Courses <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1241 | Calculus 1 | 4 |
| MATH 1242 | Calculus 2 | 4 |

Science Requirement 10

| Biology Option: |  |
| :--- | :--- |
| BIOL 1111 | General Biology 1 |
| and BIOL 1112 | and Lab for BIOL 1111 |
| BIOL 1113 | General Biology 2 |
| and BIOL 1114 | and Lab for BIOL 1113 |

Physics Option:

| PHYS 1161 | Physics 1 |
| :--- | :--- |
| and PHYS 1162 | and Lab for PHYS 1161 |

PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165

| Environmental Geology Major Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Earth Foundations |  |  |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 | 5 |
| ENVR 1202 and ENVR 1203 | History of Earth and Life and Interpreting Earth History | 5 |
| ENVR 2310 and ENVR 2311 | Earth Materials and Lab for ENVR 2310 | 5 |
| Geomorphology |  |  |
| ENVR 2340 and ENVR 2341 | Earth Landforms and Processes and Lab for ENVR 2340 | 5 |
| Environmental Geology Intermediate/Advanced Electives |  |  |
| Complete 2 Inter 2300 to ENVR 5 | iate or Advanced Electives from ENVR | 8-10 |

## Chemistry Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| General Chemistry |  |  |
| CHEM 1211 <br> and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 <br> and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |

## Intermediate Level Chemistry

CHEM $2311 \quad$ Organic Chemistry $1 \quad 5$
and CHEM 2312 and Lab for CHEM 2311
CHEM 2313 Organic Chemistry 2 5
and CHEM 2314 and Lab for CHEM 2313
CHEM 2331 Bioanalytical Chemistry 5
and CHEM 2332 and Lab for CHEM 2331
CHEM 3403 Quantum Chemistry and Spectroscopy 5
and CHEM 3404 and Lab for CHEM 3403
CHEM 3431 Physical Chemistry
and CHEM 3432 and Lab for CHEM 3431
Advanced Level Chemistry
CHEM $3521 \quad$ Instrumental Methods of Analysis 5
and CHEM 3522 and Instrumental Methods of Analysis
Lab

## Environmental Geology/Chemistry Integrative Requirement

Code Title Hours

Choose two courses from the following:

| ENVR 3410 | Environmental Geochemistry |
| :--- | :--- |
| ENVR 5190 | Soil Science |
| ENVR 5282 |  |

## Environmental Geology/Chemistry Major Credit Requirement

Complete 94 semester hours in the major.

## Program Requirement

128 total semester hours required.

## Plan of Study

Four Years, No Co-op
Year 1


## Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ENVR 2310 |  | CHEM 2311 | 4 Vacation | 0 Vacation | 0 |
| CHEM 2331 | 4 | CHEM 2312 | 1 |  |  |
| CHEM 2332 |  | GEOL intermediate/ advanced undergraduate elective | 4 |  |  |
| ENVR 2311 |  | ENGW 3315 | 4 |  |  |
| PHYS 1161 |  | History/ ethics/ aesthetics core course | 4 |  |  |


| PHYS 1162 | 1 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Diversity <br> requirement | 4 |  |  |  |
|  | 19 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 2313 | 4 CHEM 3431 | 4 Vacation | 0 Vacation | 0 |
| CHEM 2314 | 1 CHEM 3432 | 1 |  |  |
| BIOL 1113 | 4 ENVR 2340 | 4 |  |  |
| BIOL 1114 | 1 ENVR 2341 | 1 |  |  |
| CHEM 3521 | 1 Analysis <br> core course | 4 |  |  |
| CHEM 3522 | 4 Elective | 4 |  | 0 |
| Social world <br> core | 4 | 18 | 0 |  |

Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| CHEM 3403 | 4 Elective | 4 |
| CHEM 3404 | 1 Elective | 4 |
| GEOL <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 | 16 |
|  | 17 |  |

Total Hours: 142

## Chemistry, BS/MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Chemistry Major Technical Requirements

| Mathematics |  |  |
| :--- | :--- | :--- |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |

PHYS 1151
and PHYS 1152
and PHYS 1153

## Physics 2

PHYS 1155
and PHYS 1156
and PHYS 1157

Physics for Engineering 1
and Lab for PHYS 1151
and Interactive Learning Seminar for PHYS 1151

Physics for Engineering 25
and Lab for PHYS 1155
and Interactive Learning Seminar for PHYS 1155

## Chemistry Major Requirements

General Chemistry 1

| CHEM 1217 | General Chemistry 1 for Chemical | 6 |
| :--- | :--- | :--- |
| and CHEM 1218 | Science Majors <br> and Lab for CHEM 1217 |  |

## General Chemistry 2

CHEM $1220 \quad$ General Chemistry 2 for Chemical 6
and CHEM 1221 Science Majors
and Lab for CHEM 1220
Intermediate-Level Chemistry-Organic Chemistry 1
CHEM $2315 \quad$ Organic Chemistry 1 for Chemistry 6
and CHEM 2316 Majors
and Lab for CHEM 2315
Intermediate-Level Chemistry-Organic Chemistry 2
CHEM $2317 \quad$ Organic Chemistry 2 for Chemistry 6
and CHEM $2318 \quad \begin{array}{ll}\text { Majors } \\ \text { and Lab for CHEM } 2317\end{array}$
Intermediate-Level Chemistry 1
Bioanalytical Chemistry
CHEM 2331 Bioanalytical Chemistry 5
and CHEM 2332 and Lab for CHEM 2331
Physical Chemistry
CHEM $3431 \quad$ Physical Chemistry 5
and CHEM 3432 and Lab for CHEM 3431
Intermediate-Level Chemistry 2
Complete one of the following: 5

| CHEM 3403 | Quantum Chemistry and Spectroscopy |
| :--- | :--- |
| and CHEM 3404 | and Lab for CHEM 3403 |

## Biochemistry

CHEM 5621
and CHEM 5622
Principles of Chemical Biology for
and Lab for CHEM 5621

## Advanced-Level Chemistry

| CHEM 5647 <br> or CHEM 5646 | Bioinorganic Chemistry <br> CHEM 3521 <br> and CHEM 3522 | Instrumental Methods of Analysis <br> and Instrumental Methods of Analysis <br> Lab |
| :--- | :--- | ---: |
| CHEM 3531 | Chemical Synthesis Characterization <br> and CHEM 3532 | and Chemical Synthesis <br> Characterization Lab |
| CHEM 5628 | Principles of Spectroscopy of Organic <br> Compounds | 5 |

Senior Research/Capstone

## Graduate Course Work to Be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Graduate Electives

In consultation with your faculty advisor, complete four
graduate electives in the following range:

## CHEM 5601 to CHEM 7000

## Program Requirements

136 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Chemistry, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Note: Engineering students may take General Chemistry for Engineers
(CHEM 1151) in place of General Chemistry 1 (CHEM 1211) and two other chemistry courses in place of General Chemistry 2 (CHEM 1214) and Chemical Thermodynamics and Kinetics (CHEM 3401).

| General Chemistry 1 |  |  |
| :---: | :---: | :---: |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| General Chemistry 2 |  |  |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry 1 |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| Organic Chemistry 2 |  |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physical Chemistry |  |  |
| Complete one of the following: |  | 5 |
| CHEM 3431 <br> and CHEM 3432 | Physical Chemistry and Lab for CHEM 3431 |  |
| CHEM 3401 <br> and CHEM 3402 | Chemical Thermodynamics and Kinetics and Lab for CHEM 3401 |  |
| Advanced Lab |  |  |
| Complete one of the following: |  | 5 |
| CHEM 3403 and CHEM 3404 | Quantum Chemistry and Spectroscopy and Lab for CHEM 3403 |  |
| CHEM 4456 and CHEM 4457 | Organic Chemistry 3: Organic Chemistry of Drug Design and Development and Lab for CHEM 4456 |  |

## GPA Requirement

2.000 GPA required in the minor

## Environmental Studies

Website (http://www.northeastern.edu/mes)
Malcolm D. Hill, PhD
Associate Professor
Brian Helmuth, PhD
Professor
14 Holmes Hall
617.373.3176
617.373 .4378 (fax)

Malcolm D. Hill, Associate Professor, m.hill@northeastern.edu Brian Helmuth, Professor and Director of the Sustainable Science and Policy Initiative, b.helmuth@northeastern.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 introductoryto 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 interested in studying environmental issues from a science-based perspective should consider the BS in environmental science (p. 494) offered by the Department of Marine and Environmental Sciences (p. 493).)

A number of combined-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 broadbased 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.

## Academic Progression Standards

Same as college standards.

## Environmental Studies Minor

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.

## Programs

For Environmental Studies programs please see the Marine and Environmental Sciences programs (p. 494) tab.

## Linguistics

Website (http://www.northeastern.edu/linguistics)

## Neal J. Pearlmutter, PhD

Associate Professor, Psychology, and Program Director

545 Nightingale Hall
617.373.4553
linguistics@northeastern.edu
Neal J. Pearlmutter, Associate Professor and Program Director, n.pearlmutter@northeastern.edu

Heather Littlefield, Associate Teaching Professor and Assistant Director, h.littlefield@northeastern.edu

Linguistics is the scientific study of human language. A growing and exciting field, it has links to diverse fields including psychology, philosophy, neuroscience, computer science, artificial intelligence, sociology, language teaching, anthropology, and education. Linguistics is a key component of the 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 linguistic information do computers need in order for us to converse with them? What are the neurological tie-ins of language disorders such as aphasia or Williams Syndrome and what can such impairments tell us about the brain mechanisms for language? These scientific and technological questions lead us to ask other questions about language and society: How might we think about linguistic controversies, including debates about official languages, Black English, 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 apply the results of linguistic theory and computational linguistics. Linguistics is behind every application that recognizes or synthesizes speech. To work in a field that involves language in any way, you will need to know how language works, the core of the field of linguistics.

Linguistics at Northeastern offers courses in the theory and structure of language (such as phonology, morphology, syntax, and semantics); the sociocultural nature of language (such as language and culture, language and gender, and sociolinguistics); the psychology of language (offered by the Department of Psychology); and applications to related domains (such as language acquisition, language change, and historical linguistics) that cross into the humanities and social sciences.

Students can pursue a major in linguistics as well as four combined majors: linguistics and psychology, linguistics and cultural anthropology, linguistics and English, and computer science and linguistics. A minor in linguistics is also available.

Linguistics offers a variety of co-ops, including positions at local and national companies involved in speech recognition and production, as well as at Northeastern's own speech perception and language processing labs in the Department of Psychology. Linguistics majors can also participate in international co-ops-for example, working with research teams at the University of Kaiserslautern in Germany.

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, sociology, and linguistics itself. Other graduates have gone on to work in neurological research, computational linguistics, translation, language software, education, dictionary publishing, robotics, and criminal justice.

## Academic Progression Standards

Same as college standards.

## Programs

## Bachelor of Science (BS)

- Linguistics (p. 483)
- Computer Science and Linguistics (p. 485)
- Linguistics and Cultural Anthropology (p. 487)
- Linguistics and Psychology (p. 488)


## Bachelor of Arts (BA)

- Linguistics and English (p. 490)


## Minor

- Linguistics (p. 493)


## Linguistics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Linguistics Major Language Requirement

Complete two courses in the same language with a grade of C or higher. Proficiency at elementary level 2 or higher is required.

## Linguistics Major Requirements

## Required Courses

| LING 1150 | Introduction to Language and Linguistics | 4 |
| :---: | :---: | :---: |
| LING 2350 | Linguistic Analysis | 4 |
| LING 3412 | Language and Culture | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3424 or LING 3452 | Morphology Semantics | 4 |
| LING 3450 | Syntax | 4 |
| PSYC 3464 | Psychology of Language | 4 |
| Laboratory |  |  |
| Prerequisites |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| Laboratory |  |  |
| Complete one of the following: |  | 4 |
| PSYC 4610 | Laboratory in Psycholinguistics |  |
| PSYC 4612 | Laboratory in Cognition |  |

Note: With prior approval, any of the following courses may be used to fulfill the laboratory requirement. Consult your advisor to discuss this option:

| LING 4891 | Research Seminar in Linguistics |  |
| :--- | :--- | ---: |
| LING 4991 | Directed Study Research |  |
| PSYC 4991 | Directed Study Research |  |
| Linguistics Seminar |  | 4 |
| LING 4654 | Seminar in Linguistics | 4 |
| or PSYC 4658 | Seminar in Psycholinguistics |  |

Experiential Learning
Complete one of the following options, or complete a study abroad (not a Dialogue of Civilizations):
Directed Study
\(\left.\begin{array}{ll}LING 4991 \& Directed Study Research <br>

LING 4996 \& Experiential Education Directed Study\end{array}\right]\)| Junior/Senior Honors Project |  |
| :--- | :--- |
| LING 4970 | Junior/Senior Honors Project 1 |
| and LING 4971 | and Junior/Senior Honors Project 2 |

Complete four of the following:

| DEAF 2700 | ASL Linguistics |
| :---: | :---: |
| LING 3402 | African-American English |
| LING 3424 | Morphology |
| LING 3428 | African Languages |
| LING 3430 | Applied Linguistics |
| LING 3432 | Romance Linguistics |
| LING 3434 | Bilingualism |
| LING 3436 | Structure of Spanish |
| LING 3438 or LANG 3438 | Structure of French Structure of French |
| LING 3442 | Sociolinguistics |
| LING 3444 | Linguistics in Education |
| LING 3448 | Issues in Linguistics |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |
| LING 3460 | Historical Linguistics |
| LING 4654 | Seminar in Linguistics |
| LING 4891 | Research Seminar in Linguistics |
| or LING 4970 | Junior/Senior Honors Project 1 |
| or LING 4971 | Junior/Senior Honors Project 2 |
| or LING 4991 | Directed Study Research |
| or LING 4993 | Independent Study |
| or LING 4996 | Experiential Education Directed Study |
| or PSYC 4991 | Directed Study Research |


| PHIL 1215 | Symbolic Logic |
| :--- | :--- |
| PHIL 4540 | Philosophy of Language |
| PSYC 3466 | Cognition |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |


| PSYC 4658 | Seminar in Psycholinguistics |
| :--- | :--- |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |

## Linguistics Major Credit Requirement

Complete 60 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| LING 1150 | 4 | LING 2350 | 4 Vacation | 0 Vacation | 0 |
| PSYC 1101 | 4 | PSYC 3464 | 4 |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |
| MATH 1215 |  | Foreign language course | 4 |  |  |
| LING 1000 | 1 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| LING 3412 | 4 LING 3422 | 4 Vacation | 0 Co-op | 0 |
| PSYC 2320 | 4 Linguistics elective | 4 |  |  |
| Linguistics elective | 4 Elective | 4 |  |  |
| Foreign language course | 4 Elective | 4 |  |  |
|  | EESC 2000 | 1 |  |  |
|  | 16 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 LING 3450 | 4 Elective | 4 Co-op | 0 |
|  | Linguistics <br> elective | 4 Elective | 4 |  |
|  | ENGW 3315 | 4 |  |  |
|  | Elective | 4 |  | 0 |
| 0 | 16 | 8 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 LING 3424 or | 4 Elective | 4 Co-op | 0 |
|  | 3452 |  |  |  |
|  | Laboratory <br> course | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 Linguistics | 4 |
|  | seminar |  |


| Linguistics <br> elective | 4 |
| :--- | :--- | :--- |
| Elective | 4 |
| Elective | 4 |
| 0 | 16 |

Total Hours: 130

## Computer Science and Linguistics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Computer Science Courses

| Code | Title | Hours |
| :--- | :---: | :---: |
| Computer Science |  |  |

Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science | 1 |
| Overview 2: Co-op Preparation |  |  |

A grade of C - or higher is required:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 (Integrative course) | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation (Integrative course) | 4 |
| CS 4100 | Artificial Intelligence (Integrative course) | 4 |
| CS 4120 | Natural Language Processing (Integrative course) | 4 |
| CS 4400 | Programming Languages (Integrative course) | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |

## Computer Science Elective Course

With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as upper-division electives.
Complete one course from the following range:
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Linguistics Requirements

Code Title Hours

## Introductory Linguistics

| LING 1150 | Introduction to Language and <br> Linguistics | 4 |
| :--- | :--- | :--- |

Intermediate/Advanced Linguistics

| LING 2350 | Linguistic Analysis (Integrative course) | 4 |
| :--- | :--- | :--- |
| LING 3412 | Language and Culture | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3450 | Syntax (Integrative course) | 4 |

Intermediate/Advanced Linguistics Elective
LING 3424 Morphology 4

$$
\text { or LING } 3452 \quad \text { Semantics }
$$

## Psychology Requirements

| PSYC 1101 | Foundations of Psychology | 4 |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3464 | Psychology of Language | 4 |

Laboratory/Directed Study
Complete one of the following: 4

| LING 4891 | Research Seminar in Linguistics |
| :--- | :--- |
| LING 4991 | Directed Study Research |
| LING 4996 | Experiential Education Directed Study |
| PSYC 4610 | Laboratory in Psycholinguistics |
| Linguistics Elective |  |
| Complete one of the following: |  |


| DEAF 2700 | ASL Linguistics |
| :--- | :--- |
| LING 3402 | African-American English |
| LING 3424 | Morphology |
| LING 3428 | African Languages |
| LING 3430 | Applied Linguistics |
| LING 3432 | Romance Linguistics |
| LING 3434 | Bilingualism |
| LING 3436 | Structure of Spanish |
| LING 3438 | Structure of French |
| LING 3442 | Sociolinguistics |
| LING 3444 | Linguistics in Education |
| LING 3448 | Issues in Linguistics |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |
| LING 3460 | Historical Linguistics |
| LING 4654 | Seminar in Linguistics |
| PHIL 1215 | Symbolic Logic |
| PHIL 4540 | Philosophy of Language |
| PSYC 3466 | Cognition |


| PSYC 4520 | Language and the Brain |
| :--- | :--- |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| With prior approval, directed study research, independent |  |
| study, and Honors Project courses can also be counted: |  |
| LING 4891 | Research Seminar in Linguistics |
| LING 4970 | Junior/Senior Honors Project 1 |
| LING 4971 | Junior/Senior Honors Project 2 |
| LING 4991 | Directed Study Research |
| LING 4993 | Independent Study |
| PSYC 4991 | Directed Study Research |


| Seminar Requirement |  | 4 |
| :--- | :--- | :--- |
| LING 4654 | Seminar in Linguistics | 4 |
| or PSYC 4658 | Seminar in Psycholinguistics |  |


| Mathematics Requirement <br> Code <br> Calculus | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering <br> (A grade of $C$ - or higher is required ) | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |


| Computer Science English Requirement  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| College Writing | 4 |  |
| ENGW 1111 First-Year Writing |  |  |
| Advanced Writing in the Disciplines | 4 |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions <br> or ENGW 3315 | 4 |

## Required General Electives

Complete four general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Interpreting Culture
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Engaging Difference and Diversity
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1200 | 1 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 CS 2800 | 4 |  |  |
| CS 1800 | 4 CS 2801 | 1 |  |  |
| CS 1801 | 0 LING 2350 | 4 |  |  |
| LING 1150 | 4 PSYC 1101 | 4 |  | 0 |
| ENGW 1111 | 4 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 1210 | 1 Vacation | 0 Co-op | 0 |
| MATH 1341 | 4 CS 3800 | 4 |  |  |
| LING 3412 | 4 CS 4800 | 4 |  |  |
| PSYC 3464 <br> or 2320 | 4 LING 3422 | 4 |  |  |
|  | PSYC 2320 <br> or 3464 | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4120 | 4 Elective | 4 Co-op | 0 |
|  | CS 4400 | 4 Elective | 4 |  |
|  | LING 3450 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4100 | 4 Elective | 4 Co-op | 0 |
|  | Computer <br> science <br> undergraduatı <br> elective | 4 Elective | 4 |  |
|  | Linguistics <br> laboratory/ <br> directed <br> study | 4 |  |  |
|  |  |  |  |  |


|  | LING 3424, 4 <br> 3452, or  <br> Linguistics elt  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  | 16 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op | 0 | CS 4500 | 4 |  |  |
|  |  | CS 4000 | 1 |  |  |
|  |  | LING 3452, 3424, or Linguistics el | 4 <br> ctive |  |  |
|  |  | LING 4654 or PSYC 4658 | 4 |  |  |
|  |  | SOCL 4528 | 4 |  |  |
|  | 0 |  | 17 |  |  |

Total Hours: 134

## Linguistics and Cultural Anthropology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Linguistics Major Language Requirement

Complete two courses in the same language with a grade of C or higher. Proficiency at elementary level 2 or higher is required.

## Linguistics Combined-Major Requirements

Note: A grade of C or higher is required for all courses in this section.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| Intermediate/Advanced Linguistics |  |  |
| LING 2350 | Linguistic Analysis | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3442 | Sociolinguistics | 4 |
| LING 3450 | Syntax | 4 |
| LING 3456 | Language and Gender | 4 |
| Linguistics Electives |  |  |
| Complete two of the following: |  | 8 |
| DEAF 2700 | ASL Linguistics |  |
| LING 3402 | African-American English |  |
| LING 3424 | Morphology |  |
| LING 3428 | African Languages |  |
| LING 3430 | Applied Linguistics |  |


| LING 3432 | Romance Linguistics |
| :--- | :--- |
| LING 3434 | Bilingualism |
| LING 3436 | Structure of Spanish |
| LING 3438 | Structure of French |
| LING 3444 | Linguistics in Education |
| LING 3448 | Issues in Linguistics |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3458 | Topics in Linguistics |
| LING 3460 | Historical Linguistics |
| LING 4654 | Seminar in Linguistics |
| PHIL 1215 | Symbolic Logic |
| PHIL 4540 | Philosophy of Language |
| PSYC 3464 | Psychology of Language |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4658 | Seminar in Psycholinguistics |
| Linguistics Research |  |
| Complete one of the following: |  |
| LING 4891 | Research Seminar in Linguistics |
| LING 4991 | Directed Study Research |
| LING 4996 | Experiential Education Directed Study |
| LING 4970 | Junior/Senior Honors Project 1 <br> and Junior/Senior Honors Project 2 |

## Anthropology Combined-Major Requirements

Note: A grade of C or higher is required for all courses in this section.

## Code Title Hours

Cultural Anthropology

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| ANTH 4600 | Senior Seminar | 4 |

Anthropology Advanced Area Courses
Complete three of the following: 12

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Anthropology Electives

Complete three ANTH courses.

## Linguistics/Anthropology Integrative Requirement <br> Code Title Hours Integrative Course <br> LING 3412 Language and Culture 4

## Linguistics/Anthropology Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| LING 1150 | 4 | LING 2350 | 4 Vacation | Vacation |  |
| ANTH 1101 | 4 | ANTH 2305 | 4 |  |  |
| ENGW 1111 | 4 | LING 3412 | 4 |  |  |
| MATH 1215 |  | Foreign language course | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

$\left.\begin{array}{lccccc}\text { Year 2 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { LING 3422 } & 4 \text { LING } 3442 & 4 \text { Vacation } & \text { Co-op }\end{array}\right]$

| Year 3 <br> Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | LING 3456 | 4 Elective | 4 Co-op |  |
|  | Linguistics <br> elective | 4 Elective | 4 |  |
|  | Anthropology <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | Linguistics <br> elective | 4 Elective | 4 Co-op |  |
| Anthropology <br> advanced <br> area course | 4 Elective | 4 |  |  |
| Anthropology <br> advanced <br> area course | 4 |  |  |  |
|  | ENGW 3315 | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | ANTH 4600 | 4 |
|  | Anthropology <br> advanced <br> area course | 4 |
| Linguistics <br> research <br> Elective | 4 |  |
| 0 | 16 |  |

[^10]
## Four Years, No Co-op

Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LING 1150 | 4 | LING 2350 | 4 Vacation | Vacation |  |
| ANTH 1101 | 4 | ANTH 2305 | 4 |  |  |
| ENGW 1111 | 4 | LING 3412 | 4 |  |  |
| MATH 1215 | 4 | Foreign language course | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

Year 2
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { LING 3422 } & 4 \text { LING 3442 } & 4 & \text { Vacation } & \text { Vacation }\end{array}\right]$

Year 3

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Anthropology elective | 4 | LING 3456 | 4 Vacation | Vacation |  |
| Anthropology advanced area course |  | Linguistics elective | 4 |  |  |
| Elective |  | Anthropology advanced area course | 4 |  |  |
| ENGW 3315 | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Linguistics research | 4 | ANTH 4600 | 4 |  |  |
| Anthropology advanced area course |  | Linguistics elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 |  |  |
| Total Hours: 128 |  |  |  |  |  |
| Linguistics and Psychology, BS |  |  |  |  |  |

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Linguistics Language Requirement

Complete two courses in the same language with a grade of C or higher. Proficiency at elementary level 2 or higher is required.

## Linguistics Requirements

| Code |  | Hours |
| :---: | :---: | :---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| Intermediate/Advanced Linguistics |  |  |
| LING 2350 | Linguistic Analysis | 4 |
| LING 3412 | Language and Culture | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3450 | Syntax | 4 |
| Linguistics Electives |  |  |
| Complete three of th | following: | 12 |
| DEAF 2700 | ASL Linguistics |  |
| LING 3402 | African-American English |  |
| LING 3424 | Morphology |  |
| LING 3428 | African Languages |  |
| LING 3430 | Applied Linguistics |  |
| LING 3432 | Romance Linguistics |  |
| LING 3434 | Bilingualism |  |
| LING 3436 | Structure of Spanish |  |
| LING 3438 | Structure of French |  |
| LING 3442 | Sociolinguistics |  |
| LING 3444 | Linguistics in Education |  |
| LING 3448 | Issues in Linguistics |  |
| LING 3452 | Semantics |  |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |
| LING 3460 | Historical Linguistics |  |
| LING 4654 | Seminar in Linguistics |  |
| LING 4891 <br> or LING 4970 <br> or LING 4971 <br> or LING 4991 <br> or LING 4993 | Research Seminar in Linguistics Junior/Senior Honors Project 1 Junior/Senior Honors Project 2 Directed Study Research Independent Study |  |
| PHIL 1215 | Symbolic Logic |  |
| PHIL 4540 | Philosophy of Language |  |

## Psychology Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introductory and Intermediate Psychology |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| Advanced Psychology |  | 4 |
| PSYC 3402 | Social Psychology | 4 |
| PSYC 3466 | Cognition | 4 |

Complete one of the laboratory courses or, with prior approval, a directed study or Honors Project on a topic related to psycholinguistics or cognition:

| PSYC 4610 | Laboratory in Psycholinguistics |
| :--- | :--- |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4970 | Junior/Senior Honors Project 1 |
| PSYC 4971 | Junior/Senior Honors Project 2 |
| PSYC 4991 | Directed Study Research |

## Psychology Seminar

Complete one of the following: 4

| PSYC 4658 | Seminar in Psycholinguistics |
| :--- | :--- |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |

## Psychology Electives

A directed study on a topic related to psycholinguistics or cognition may be taken with prior approval.
Complete two of the following: 8

| PSYC 2356 | Nonverbal Communication |
| :--- | :--- |
| PSYC 3404 | Developmental Psychology |
| PSYC 3450 | Learning and Motivation |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4526 | Categorization and Reasoning |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| PSYC 4991 | Directed Study Research |

## Linguistics/Psychology Combined-Major Requirements

Code Title Hours

## Experiential Learning

Complete a directed study, two junior/senior honors project courses, or a study abroad (not a Dialogue):

| LING 4991 | Directed Study Research | 4 |
| :--- | :--- | :--- |
| LING 4996 | Experiential Education Directed Study | 4 |
| LING 4970 | Junior/Senior Honors Project 1 | 8 |

and LING 4971 and Junior/Senior Honors Project 2
PSYC 4970 Junior/Senior Honors Project 1 8

| and PSYC 4971 | and Junior/Senior Honors Project 2 | 4 |
| :--- | :--- | :--- |

Integrative Course
PSYC $3464 \quad$ Psychology of Language 4

## Linguistics and Psychology Combined-Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall



| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| LING 3412 | 4 | LING 3422 | 4 Vacation | 0 Co-op | 0 |
| PSYC 2320 | 4 | Linguistics elective | 4 |  |  |
| PSYC 3466 | 4 | PSYC 3402 | 4 |  |  |
| Foreign language course | 4 | Psychology elective | 4 |  |  |
|  |  | EESC 2000 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |



| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Linguistics <br> elective | 4 Elective | 4 Co-op | 0 |
|  | Linguistics <br> or <br> psychology <br> elective | 4 Elective | 4 |  |
| Psychology <br> seminar | 4 |  |  |  |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

[^11]
## Four Years, no Co-op

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| LING 1150 | 4 LING 2350 | 4 Vacation | 0 Vacation | 0 |
| PSYC 1101 | 4 PSYC 3464 | 4 |  |  |
| ENGW 1111 | 4 Foreign <br> language <br> course | 4 |  |  |
| MATH 1215 | 4 Elective | 4 | 0 | 0 |
|  | 16 | 16 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| LING 3412 | 4 LING 3422 | 4 Vacation | 0 Vacation | 0 |
| PSYC 2320 | 4 PSYC 3402 | 4 |  |  |
| PSYC 3466 | 4 Linguistics elective | 4 |  |  |
| Foreign language course | 4 Psychology elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Linguistics elective | 4 LING 3450 | 4 Vacation | Vacation |  |
| Psychology <br> Lab | 4 Linguistics or psychology elective | 4 |  |  |
| ENGW 3315 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Linguistics <br> or <br> psychology <br> elective | 4 Elective | 4 |
| Psychology <br> seminar | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Linguistics and English, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Linguistics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and | 4 |
|  | Linguistics |  |

## English Requirements Code Title

Hours

## Literature Backgrounds

ENGL 1700 Global Literature to 1500 4

Literature Survey Courses
Complete three of the following:

| AFAM 3664 | Black Poetry and the Spoken Word |
| :--- | :--- |
| ENGL 1120 | Trouble in Utopia |
| ENGL 1130 | Animals, Objects, Humans |
| ENGL 1450 | Reading and Writing in the Digital Age |
| ENGL 1500 | British Literature to 1800 |
| ENGL 1501 | British Literature 1800 to Present |
| ENGL 1502 | American Literature to 1865 |
| ENGL 1503 | American Literature 1865 to Present |
| ENGL 1701 | Global Literature 1500 to Present |
| ENGL 2370 | The Modern Short Story |
| ENGL 2380 | The Modern Novel |
| ENGL 2400 | Modern Poetry |
| ENGL 2420 | Contemporary Poetry |
| ENGL 2430 | Contemporary Fiction |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2510 | Horror Fiction |
| ENGL 2520 | Science Fiction |
| ENGL 2620 | What Is Nature? (Abroad) |
| ENGL 3427 | The Literature of Science |
| ENGL 3487 | Film and Text Abroad |
| ENGL 3488 | Film and Text |
| ENGL 3572 | Fantasy |
| ENGL 3582 | Children's Literature |
| ENGL 3663 | The African-American Novel |
| ENGL 4684 | Topics in Postcolonial Literature |
| ENGL 4688 | Topics in Comparative Textual Studies |

Shakespeare Course
Complete one of the following: 4
ENGL 1600 Introduction to Shakespeare
ENGL 2215 Shakespeare's Comedies
ENGL 2216 Shakespeare's Tragedies
Literature before 1800
Complete one of the following: 4

| ENGL 1600 | Introduction to Shakespeare |
| :--- | :--- |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3607 | Chaucer |
| ENGL 3618 | Milton |



|  | Foreign <br> language <br> core course | 4 |
| :--- | :--- | :--- |
| Experiential <br> Learning <br> research <br> course or <br> Elective |  |  |
| 0 | 16 |  |

Total Hours: 129

## Linguistics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| LING 1150 | Introduction to Language and |  |
| :---: | :--- | :---: |
|  | Linguistics | 4 |
| LING 2350 | Linguistic Analysis | 4 |
| LING 3422 | Phonetics and Phonology | 4 |

## Elective Courses

Complete two additional courses from the following range:
LING 2000 to LING 4996

## GPA Requirement

2.000 GPA required in the minor

## Marine and Environmental Sciences

Website (http://www.northeastern.edu/mes)
Geoffrey C. Trussell, PhD
Professor and Chair
Rebeca Rosengaus, PhD
Associate Professor and Associate Chair
14 Holmes Hall
617.373.3176
617.373 .4378 (fax)

Mark R. Patterson, Professor, m.patterson@northeastern.edu Richard Bailey, Professor, r.bailey@northeastern.edu Jonathan H. Grabowski, Associate Professor, j.grabowski@northeastern.edu

The Department of Marine 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 three concentrations-marine science, conservation science; or geoscience-as a program focus for their upper-level course work. We also provide an independent track 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 interested in studying environmental issues from a policybased perspective should consider the BA in environmental studies (p. 482) offered by the Environmental Studies Program (p. 482).)

4 Our Bachelor of Science in Marine Biology degree is designed to provide a strong foundation in marine biology and related disciplines. This major is offered through Northeastern University's Marine Science Center in Nahant.

A number of combined-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.

## Three Seas Program

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 spring semester at Northeastern University's Marine Science Center in Nahant, twelve miles north of the main campus. Courses the following fall are conducted at the University of Washington's Friday Harbor Laboratories on San Juan Island, which is seventy miles north of Seattle and part of an archipelago that lies between the mainland and Vancouver Island, and at the Smithsonian Tropical Research Institute in Bocas del Toro, Panama, where students engage in tropical biology research. For more information, contact Mark Patterson at 781.581.7370 (ext. 313), or visit the Three Seas Program website at www.northeastern.edu/threeseas (http:// www.northeastern.edu/threeseas).

## Marine Studies Minor

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 Rebeca Rosengaus at 617.373.7032 or at r.rosengaus@northeastern.edu.

## 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 Rebeca Rosengaus at 617.373.7032 or at r.rosengaus@northeastern.edu.

## 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 hands-on 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 sixweek 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 faculty advisor for marine biology, Professor Mark Patterson (Marine Science Center), at 781.581.7370, extension 313, or by email (m.patterson@northeastern.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.

## Academic Progression Standards

Same as college standards.

## Programs

## Bachelor of Arts (BA)

- Environmental Studies (http://catalog.northeastern.edu/ undergraduate/science/marine-environmental/environmental-studies-ba)
- Environmental Studies and History (http://catalog.northeastern.edu/ undergraduate/science/marine-environmental/environmental-studies-history-ba)
- Environmental Studies and International Affairs (http:// catalog.northeastern.edu/undergraduate/science/marine-environmental/environmental-studies-international-affairs-ba)
- Environmental Studies and Philosophy (http:// catalog.northeastern.edu/undergraduate/science/marine-environmental/environmental-studies-philosophy-ba)
- Environmental Studies and Political Science (http:// catalog.northeastern.edu/undergraduate/science/marine-environmental/environmental-studies-political-science-ba)


## Bachelor of Science (BS)

- Environmental Science (p. 494)
- Marine Biology (p. 499)
- Computer Science and Environmental Science (p. 505)
- Environmental Geology and Chemistry (p. 507)
- Environmental Studies and Economics (http:// catalog.northeastern.edu/undergraduate/science/marine-environmental/environmental-studies-economics-bs)
- Information Science and Environmental Science (p. 509)


## Minors

- Environmental Geology (p. 511)
- Environmental Science (p. 510)
- Environmental Studies (http://catalog.northeastern.edu/ undergraduate/science/marine-environmental/environmental-studies-minor)
- Geology (p. 511)
- Marine Biology (p. 512)
- Marine Studies (p. 512)


## Environmental Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Environmental Science Major Requirements
Introduction to College

| ENVR 1000 | Marine and Environmental Sciences at | 1 |
| :--- | :--- | :--- |
|  | Northeastern |  |

## Geology Courses

| ENVR 1101 | Environmental Science | 4 |
| :--- | :--- | ---: |
| ENVR 1200 | Dynamic Earth | 5 |
| and ENVR 1201 | and Lab for ENVR 1200 |  |
| Calculus 1 |  | 4 |
| MATH 1241 | Calculus 1 | 4 |
| or MATH 1251 <br> or MATH 1341 | Calculus and Differential Equations for Biology 1 |  |
| Calculus 1 for Science and Engineering |  |  |

## Calculus 2 or Biostatistics

Complete one of the following: 4-5
ENVR 2500 Biostatistics 5
and ENVR 2501 and Lab for ENVR 2500
MATH 1242 Calculus 2 4
or MATH 1252 Calculus and Differential Equations for Biology 2
or MATH 1342 Calculus 2 for Science and Engineering
General Chemistry 1
CHEM 1211 General Chemistry 1 5
and CHEM 1212 and Lab for CHEM 1211
and CHEM 1213 and Recitation for CHEM 1211

| General Chemistry 2 |  | 5 |
| :--- | :--- | ---: |
| CHEM 1214 <br> and CHEM 1215 <br> and CHEM 1216 | General Chemistry 2 <br> and Lab for CHEM 1214 <br> and Recitation for CHEM 1214 |  |
| Organic Chemistry | Organic Chemistry 1 <br> CHEM 2311 <br> and CHEM 2312 <br> Physics 1 | and Lab for CHEM 2311 |
| Complete one of the following: |  |  |


| PHYS 1145 <br> and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 |  |
| :---: | :---: | :---: |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| PHYS 1161 and PHYS 1162 and PHYS 1163 | Physics 1 and Lab for PHYS 1161 and Recitation for PHYS 1161 |  |
| PHYS 1171 <br> and PHYS 1172 <br> and PHYS 1173 | Physics 1 for Bioscience and Bioengineering and Lab for PHYS 1171 and Interactive Learning Seminar for PHYS 1171 |  |
| Earth and Environmental Science Capstone |  |  |
| ENVR 4900 | Earth and Environmental Science Capstone | 1-4 |
| or ENVR 4997 | Senior Thesis |  |

## Environmental Science Concentrations

Complete one of the following concentrations:
CONCENTRATION IN MARINE SCIENCE
Required Marine Science Courses

| ENVR 3125 | Global Oceanic Change | 4 |
| :--- | :--- | :--- |
| ENVR 4106 | Coastal Processes | 4 |
| Physics 2 |  | 5 |
| Complete one of the following: |  |  |

PHYS $1155 \quad$ Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for
PHYS 1155
PHYS 1147
and PHYS 1148
PHYS 1165
and PHYS 1166
and PHYS 1167
PHYS 1175
and PHYS 1176
and PHYS 1177
Physics for Life Sciences 2
and Lab for PHYS 1147
Physics 2
and Lab for PHYS 1165
and Recitation for PHYS 1165
Physics 2 for Bioscience and
Bioengineering
and Lab for PHYS 1175
and Interactive Learning Seminar for
PHYS 1175
Marine Science Elective Courses
Complete six of the following:
BIOL $1107 \quad$ Foundations of Biology
and BIOL 1108 and Lab for BIOL 1107
or BIOL 1111 General Biology 1
and BIOL 1112 and Lab for BIOL 1111
BIOL 5100 Biology Colloquium
EEMB 2400 Introduction to Evolution
EEMB 2410 Fish Biology and Ecology
and EEMB 2411 and Lab for EEMB 2410
EEMB 2420 Fisheries Biology, Policy, and Conservation
EEMB $2700 \quad$ Marine Biology
and EEMB 2701 and Lab for EEMB 2700
EEMB $3120 \quad$ Physical Biology of Marine Organisms
ENVR 2500 Biostatistics
and ENVR 2501 and Lab for ENVR 2500
ENVR 3300 Geographic Information Systems
and ENVR 3301 and Lab for ENVR 3300
ENVR 3302 Introduction to Remote Sensing
and ENVR 3303 and Lab for ENVR 3302
ENVR 4505 Wetlands
ENVR 5242 Ancient Marine Life
and ENVR 5243 and Lab for ENVR 5242
Marine Studies Consortium Courses (unrestricted)
MARS $3210 \quad$ Marine Mammals
MARS $3200 \quad$ Marine Studies
MARS 3300 The Ocean World
MARS $3305 \quad$ Maritime History of New England
MARS $3310 \quad$ Water Resources Policy and
Management
MARS 3325 Coastal Zone Management
MARS $3430 \quad$ Biology of Whales
MARS $4500 \quad$ Advanced Seminar in Marine Studies
Three Seas restricted courses
EEMB $5504 \quad$ Biology of Corals
EEMB 5506 Biology and Ecology of Fishes
EEMB 5508 Marine Birds and Mammals
and EEMB 5509 and Lab for EEMB 5508
EEMB 5512 Tropical Terrestrial Ecology
EEMB 5516 Oceanography
and EEMB 5517 and Lab for EEMB 5516
EEMB 5518 Ocean and Coastal Processes

| EEMB 5520 | Coral Reef Ecology |  |
| :---: | :---: | :---: |
| EEMB 5522 <br> and EEMB 5523 | Experimental Design Marine Ecology and Lab for EEMB 5522 |  |
| EEMB 5528 | Marine Conservation Biology |  |
| EEMB 5532 | Physiological and Molecular Marine Ecology |  |
| EEMB 5534 and EEMB 5535 | Marine Invertebrate Zoology and Botany and Lab for EEMB 5534 |  |
| EEMB 5536 | Ocean and Coastal Sustainability |  |
| EEMB 5589 | Diving Research Methods |  |
| SEA Semester restricted courses |  |  |
| ENVR 3103 | Oceanographic Field Methods |  |
| ENVR 3104 | Advanced Oceanographic Field Methods |  |
| ENVR 3105 | Practical Oceanographic Research |  |
| CONCENTRATION IN CONSERVATION SCIENCE <br> Required Conservation Science Courses |  |  |
| BIOL 1107 and BIOL 1108 <br> or BIOL 1111 and BIOL 1112 | Foundations of Biology and Lab for BIOL 1107 <br> General Biology 1 and Lab for BIOL 1111 | 5 |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| EEMB 2302 and EEMB 2303 | Ecology and Lab for EEMB 2302 | 5 |
| EEMB 3460 | Conservation Biology | 4 |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 | 5 |
| Complete one of the | following: | 3-4 |
| ECON 3423 | Environmental Economics |  |
| POLS 2395 | Environmental Politics and Policy |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| Conservation Science Electives |  |  |
| Note: Additional upper-level electives (numbered 2000 and above) may also be acceptable with department advisor approval. |  |  |
| Complete three of the following: |  | 12-15 |
| BIOL 3401 <br> and BIOL 3402 | Comparative Vertebrate Anatomy and |  |
| BIOL 3403 | Animal Behavior |  |
| BIOL 5499 | Plant Biotechnology |  |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 |  |
| CIVE 4778 | Climate Adaptation and Policy Abroad |  |
| CIVE 5270 | Environmental Protection and Management |  |
| CIVE 5271 | Solid and Hazardous Waste Management |  |
| EEMB 2290 | Ecology and Evolution of Behavior |  |
| EEMB 2400 | Introduction to Evolution |  |
| EEMB 2610 <br> and EEMB 2611 | Plant Biology and Lab for EEMB 2610 |  |
| EEMB 2616 and EEMB 2617 | Invertebrate Zoology and Lab for EEMB 2616 |  |


| EEMB 2618 | Vertebrate Zoology |
| :--- | :--- |
| and EEMB 2619 | and Lab for EEMB 2618 |
| EEMB 2700 | Marine Biology |
| and EEMB 2701 | and Lab for EEMB 2700 |
| EEMB 3120 | Physical Biology of Marine Organisms |
| EEMB 5506 | Biology and Ecology of Fishes |
| EEMB 5508 | Marine Birds and Mammals |
| and EEMB 5509 | and Lab for EEMB 5508 |
| EEMB 5512 | Tropical Terrestrial Ecology |
| EEMB 5516 | Oceanography |
| and EEMB 5517 | and Lab for EEMB 5516 |
| EEMB 5520 | Coral Reef Ecology |
| EEMB 5560 | Entomology |
| and EEMB 5561 | and Lab for EEMB 5560 |
| EEMB 5562 | Herpetology |
| and EEMB 5563 | and Lab for EEMB 5562 |
| EEMB 5564 | Ornithology |
| and EEMB 5565 | and Lab for EEMB 5564 |
| EEMB 5566 | Mammalogy |
| and EEMB 5567 | and Lab for EEMB 5566 |
| EEMB 5568 | Wildlife Biology |
| and EEMB 5569 | and Lab for EEMB 5568 |
| ENVR 2500 | Biostatistics |
| and ENVR 2501 | and Lab for ENVR 2500 |
| ENVR 3125 | Global Oceanic Change |
| ENVR 3200 | Water Resources |
| ENVR 4106 | Coastal Processes |
| and ENVR 4107 | and Lab for ENVR 4106 |
| ENVR 4504 | Environmental Pollution |
| ENVR 4505 | Wetlands |
| ENVR 4515 | Sustainable Development |
| ENVR 4563 | Advanced Spatial Analysis |
| ENVR 5190 | Soil Science |
| ENVR 5210 | Environmental Planning |
| ENVR 5250 | Geology and Land-Use Planning |
| ENVR 5400 | Marine Science Policy and Ethics |
| ENVS 2342 | Eating and the Environment |

## CONCENTRATION IN GEOSCIENCE

Required Geoscience Courses
ENVR $2310 \quad$ Earth Materials 5
and ENVR 2311 and Lab for ENVR 2310
ENVR 2340 Earth Landforms and Processes 5
and ENVR 2341 and Lab for ENVR 2340
ENVR $3300 \quad$ Geographic Information Systems 5
and ENVR 3301 and Lab for ENVR 3300
or ENVR 5250 Geology and Land-Use Planning
Physics 2
Complete one of the following:
PHYS $1147 \quad$ Physics for Life Sciences 2
and PHYS 1148 and Lab for PHYS 1147
PHYS 1155 Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155

| PHYS 1165 <br> and PHYS 1166 <br> and PHYS 1167 | Physics 2 <br> and Lab for PHYS 1165 <br> and Recitation for PHYS 1165 |  |
| :---: | :---: | :---: |
| PHYS 1175 <br> and PHYS 1176 <br> and PHYS 1177 | Physics 2 for Bioscience and Bioengineering and Lab for PHYS 1175 and Interactive Learning Seminar for PHYS 1175 |  |
| Geoscience Concentration Electives |  |  |
| Complete four of the following: |  | 16-20 |
| ENVR 3000 and ENVR 3001 | Igneous Petrology and Volcanology and Lab for ENVR 3000 |  |
| ENVR 3125 | Global Oceanic Change |  |
| ENVR 3418 | Geophysics |  |
| ENVR 4106 and ENVR 4107 | Coastal Processes and Lab for ENVR 4106 |  |
| ENVR 4504 | Environmental Pollution |  |
| ENVR 4505 | Wetlands |  |
| ENVR 4500 and ENVR 4501 | Applied Hydrogeology and Lab for ENVR 4500 |  |
| ENVR 4563 | Advanced Spatial Analysis |  |
| ENVR 5190 | Soil Science |  |
| ENVR 5201 | Geologic Field Seminar |  |
| ENVR 5230 and ENVR 5231 | Structural Geology and Lab for ENVR 5230 |  |
| ENVR 5240 and ENVR 5241 | Sedimentary Basin Analysis and Lab for ENVR 5240 |  |
| ENVR 5242 and ENVR 5243 | Ancient Marine Life and Lab for ENVR 5242 |  |
| ENVR 5270 and ENVR 5271 | Glacial and Quaternary History and Lab for ENVR 5270 |  |
| Dialogue of Civiliza | ions restricted courses |  |
| ENVR 5202 | Environmental Science Field Seminar Abroad |  |
| Environmental Science Major Credit Requirement |  |  |
| Complete 77 semester hours in the major. |  |  |

## Program Requirement

128 total semester hours required

## Plan of Study

Four Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| ENVR 1000 |  | CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 | Elective | 4 Elective | 4 |
| ENVR 1101 | 4 | ENGW 1111 | 4 | Elective | 4 Elective | 4 |
| MATH 1241 |  | ENVR 1200 and ENVR 1201 | 5 |  |  |  |
| PHYS 1161 <br> and <br> PHYS 1162 <br> and <br> PHYS 1163 | 5 | MATH 1242 | 4 |  |  |  |


| Elective | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 18 | 18 | 8 | 8 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CHEM 1214 and | 5 Co-op | 0 Co-op | 0 Elective | 4 |
| CHEM 1215 and CHEM 1216 |  |  |  |  |
| EESC 2000 | 1 |  | Elective | 4 |
| Concentration course | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 0 | 0 | 8 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CHEM 2311 <br> and CHEM 1212 | 5 Co-op | 0 Co-op | 0 Elective | 4 |
| Concentratior course | 4 |  | Elective | 4 |
| Concentration course | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| ENGW 3303, 3307, or 3315 | 4 ENVR 4900 or 4997 | 1-4 |  |  |
| Concentratior course | 4 Concentratior course | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 13-16 |  |  |

Total Hours: 132-135

## Four Years, Two Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENVR 1000 | 1 CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 Elective | 4 Elective | 4 |
| ENVR 1101 | 4 ENGW 1111 | 4 Elective | 4 Elective | 4 |
| MATH 1241 | 4 ENVR 1200 <br> and ENVR 1201 | 5 |  |  |
| PHYS 1161 <br> and <br> PHYS 1162 <br> and <br> PHYS 1163 | 5 MATH 1242 | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 18 | 18 | 8 | 8 |



| Year 3 <br> Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 <br> ENGW 3303, <br> 3307, or <br> 3315 | 4 Elective | 4 Co-op | 0 |
|  | Concentratior <br> course | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |
| 0 | 16 |  | 8 |  |


| Year 4 |  |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hours |
| Co-op | ENVR 4900 <br> or 4997 | $1-4$ |
|  | Concentratior <br> course | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | $13-16$ |

Total Hours: 132-135

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENVR 1000 | 1 <br> CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 Vacation | 0 Vacation | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CHEM 2311 and CHEM 2312 | 5 Co-op | 0 Co-op | 0 Elective | 4 |
| Concentratior course | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3303, <br> 3307, or | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| 3315 |  |  |  |  |
| Concentratior <br> course | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

## Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| Concentration course |  | ENVR 4900 or 4997 | 1-4 |
| Elective | 4 | Concentratior course | 4 |
| Elective | 4 | Elective | 4 |
| Elective | 4 | Elective | 4 |
| 16 |  |  | 13-16 |

Total Hours: 132-135

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | E |  |  |  |
| ENVR 1000 | CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 Vacation | 0 Vacation | 0 |


| PHYS 1161 <br> and | 5 MATH 1242 | 4 |  |  |
| :--- | :---: | :---: | :--- | :--- |
| PHYS 1162 |  |  |  |  |
| and |  |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 1214 | CHEM 2311 <br> and | 5 Vacation | 0 Co-op | 0 |
| CHEM 1215 <br> and <br> CHEM 1216 | CHEM 2312 |  |  |  |
| Concentratior <br> course | 4 EESC 2000 | 1 |  |  |
| Elective | 4 Concentration <br> course | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | Concentration <br> course | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |
| 0 | 16 | 8 |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | $\begin{aligned} & 0 \text { ENGW 3303, } \\ & 3307 \text {, or } \\ & 3315 \end{aligned}$ | 4 Elective | 4 Co-op | 0 |
|  | Concentratior course | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | ENVR 4900 <br> or 4997 | $1-4$ |
|  | Concentratior <br> course | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | $13-16$ |  |

Total Hours: 132-135

## Marine Biology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
Breadth Courses For Marine Biology
Mathematics

| MATH 1251 | Calculus and Differential Equations for | 4 |
| :---: | :--- | :---: |
| or MATH 1241 | Biology 1 | Calculus 1 |

## Biostatistics

ENVR 2500 Biostatistics 5
and ENVR 2501
and Lab for ENVR 2500
General Chemistry 1
CHEM 1211 General Chemistry $1 \quad 5$
and CHEM 1212 and Lab for CHEM 1211
and CHEM 1213 and Recitation for CHEM 1211
General Chemistry 2
CHEM 1214 General Chemistry 2
and CHEM 1215 and Lab for CHEM 1214
and CHEM 1216 and Recitation for CHEM 1214
Organic Chemistry 1
CHEM 2311 Organic Chemistry $1 \quad 5$
and CHEM 2312 and Lab for CHEM 2311

## Physics

Complete a lecture/lab set for Physics 1 and for Physics 2: 10
Physics 1

| PHYS 1145 |  |
| :--- | :--- |
| and PHYS 1146 | Physics for Life Sciences 1 |
| and Lab for PHYS 1145 (recommended) |  |
| PHYS 1151 | Physics for Engineering 1 <br> and PHYS 1152 <br> and PHYS Lab for PHYS 1151 |
| and Interactive Learning Seminar for |  |
| and InS 1161 |  |
| PHYS 1151 |  |

## Marine Biology Major Requirements <br> Introduction to College

BIOL 1000 Biology at Northeastern 1
Required Biology
Complete one of the following:

| BIOL 1107 <br> and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 |  |
| :---: | :---: | :---: |
| BIOL 1111 <br> and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 |  |
| Genetics |  |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Organismal and Population Biology |  |  |
| EEMB 2302 and EEMB 2303 | Ecology <br> and Lab for EEMB 2302 | 5 |


| Introduction to Evolution | 4 |  |
| :--- | :--- | ---: |
| EEMB 2400 | Introduction to Evolution |  |
| Marine Biology |  | 5 |
| EEMB 2700 | Marine Biology |  |
| and EEMB 2701 | and Lab for EEMB 2700 |  |


| Marine Biology Electives |  |
| :--- | :--- |
| Complete four of the following: | $16-20$ |


| EEMB 2290 | Ecology and Evolution of Behavior |
| :--- | :--- |
| EEMB 2410 | Fish Biology and Ecology |
| and EEMB 2411 | and Lab for EEMB 2410 |
| EEMB 2420 | Fisheries Biology, Policy, and |


| EEMB 2420 | Fisheries Biology, Policy, and <br> Conservation |  |
| :--- | :--- | :--- |
| EEMB 2616 | Invertebrate Zoology |  |
| and EEMB 2617 | and Lab for EEMB 2616 |  |
| EEMB 3120 | Physical Biology of Marine Organisms | b |
| EEMB 3450 | Physiological Adaptations to the <br> Environment | Pro |
| EEMB 3460 | Conservation Biology | 1 |
| EEMB 5130 | Ecological Dynamics | P |

## Experiential Learning

An activity related to marine biology and approved by the experiential learning advisor must be completed before the capstone. Among the possibilities are co-op experience, junior/senior honors thesis, research project in a faculty lab, volunteer work in a biology-related area, participation in the Three Seas Program with submission of a project paper, or other approved experiences.

| Advanced Writing in the Disciplines |  |  |
| :---: | :---: | :---: |
| ENGW 3307 or ENGW 3315 | Advanced Writing in the Sciences Interdisciplinary Advanced Writing in the Disciplines | 4 |
| Biology Capstone |  |  |
| Complete one of the following: |  | 1-4 |
| BIOL 4701 | Biology Capstone |  |
| ENVR 4900 | Earth and Environmental Science Capstone |  |
| ENVR 4997 | Senior Thesis |  |

## Marine Biology Major Credit/GPA Requirements

Complete 74 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.

## Program Requirement

136 total semester hours required

## Plan of Study

Four Years, Two Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 and | 5 CHEM 1214 and | 5 Elective | 4 Elective | 4 |
| BIOL 1108 | CHEM 1215 and CHEM 1216 |  |  |  |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and CHEM 1213 | 5 EEMB 2400 | 4 Elective | 4 Elective | 4 |
| ENVR 1000 | 1 ENGW 1111 | 4 |  |  |
| MATH 1251 | 4 Elective | 4 |  |  |
|  | 15 | 17 | 8 | 8 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 2301 <br> and | 5 Co-op | 0 Co-op | 0 Elective | 4 |
| BIOL 2302 |  |  |  |  |
| EEMB 2302 <br> and | 5 | Elective | 4 |  |
| EEMB 2303 |  |  |  |  |


| Year 3 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours | Summer 2 | Hours |
| ENVR 2500 <br> and <br> ENVR 2501 | 5 | Co-op | 0 Co-op |  | PHYS 1147 <br> and <br> PHYS 1148 | 5 |
| PHYS 1145 and PHYS 1146 | 5 |  |  |  | Elective | 4 |
| Elective | 4 |  |  |  |  |  |
| Marine biology elective | 5 |  |  |  |  |  |
|  | 19 |  | 0 | 0 |  | 9 |
| Year 4 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |
| CHEM 2311 <br> and <br> CHEM 2312 | 5 | BIOL 4701, <br> ENVR 4900, <br> or ENVR <br> 4997 | 1-4 |  |  |  |
| ENGW 3303, <br> 3307, or <br> 3315 | 4 | Elective | 4 |  |  |  |
| Marine biology elective | 5 | Elective | 4 |  |  |  |
| Marine biology elective |  | Marine biology elective | 5 |  |  |  |
|  | 19 |  | 14-17 |  |  |  |

Total Hours: 133-136

## Four Years, Two Co-ops in Summer 2/Fall



| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EEMB 2302 <br> and <br> EEMB 2303 | 5 | BIOL 2301 <br> and <br> BIOL 2302 | 5 | Elective | 4 | Co-op | 0 |
| EEMB 2700 and EEMB 2701 | 5 | EESC 2000 | 1 | Elective | 4 |  |  |
| Elective |  | ENVR 2500 <br> and <br> ENVR 2501 | 5 |  |  |  |  |


| Marine biology elective | 5 Elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 19 | 15 | 8 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CHEM 2311 <br> and CHEM 2312 | 5 Elective | 4 Co-op | 0 |
|  | ENGW 3303, <br> 3307, or <br> 3315 | 4 Elective | 4 |  |
|  | Marine biology elective | 5 |  |  |
|  | Marine biology elective | 5 |  |  |
|  | 0 | 19 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 BIOL 4701, | $1-4$ |
|  | ENVR 4900, <br> or ENVR <br> 4997 |  |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Marine <br> biology <br> elective | 5 |

Total Hours: 133-136

## Marine Biology-Three Seas Program,

 Four Years, One Co-op in Spring/Summer 1Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 <br> and <br> BIOL 1108 | 5 CHEM 1214 <br> and CHEM 1215 and CHEM 1216 | 5 Vacation | 0 PHYS 1147 and PHYS 1148 | 5 |
| CHEM 1211 and CHEM 1212 and CHEM 1213 | 5 EEMB 2400 | 4 | Elective | 4 |
| ENVR 1000 | 1 ENGW 1111 | 4 |  |  |
| MATH 1251 | 4 PHYS 1145 and PHYS 1146 | 5 |  |  |
| Elective | 4 |  |  |  |
|  | 19 | 18 | 0 | 9 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 2301 | 5 Co-op | 0 Co-op | 0 Vacation | 0 |
| and |  |  |  |  |
| BIOL 2302 |  |  |  |  |



## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 <br> and | 5 CHEM 1214 <br> and | 5 Vacation | 0 Vacation | 0 |
| BIOL 1108 | CHEM 1215 and CHEM 1216 |  |  |  |
| CHEM 1211 <br> and | 5 EEMB 2400 | 4 |  |  |
| CHEM 1212 <br> and <br> CHEM 1213 |  |  |  |  |
| ENVR 1000 | 1 ENGW 1111 | 4 |  |  |
| MATH 1251 | 4 Elective | 4 |  |  |
|  | 15 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 2301 <br> and <br> BIOL 2302 | 5 Co-op | 0 Co-op | 0 Elective | 4 |
| EEMB 2700 <br> and <br> EEMB 2701 | 5 |  | Elective | 4 |
| EEMB 2302 <br> and <br> EEMB 2303 | 5 |  |  |  |
| EESC 2000 | 1 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 2311 | 5 Co-op | 0 Co-op | 0 Vacation | 0 |
| and <br> CHEM 2312 |  |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Marine <br> biology <br> elective | 5 |  | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ENGW 3303, | 4 BIOL 4701, | 1-4 |
| 3307, or | ENVR 4900, |  |
| 3315 | or ENVR |  |
|  | 4997 |  |
| Elective | 4 Elective | 4 |


| Marine <br> biology <br> elective | 5 Elective | 4 |
| :--- | ---: | ---: |
| Marine <br> biology <br> elective | 5 Marine <br> biology <br> elective | 5 |
|  | 18 | $14-17$ |
| Total Hours: $133-136$ |  |  |

## Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 2
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \begin{array}{l}\text { BIOL 2301 } \\ \text { and }\end{array} & \begin{array}{c}\text { ENVR 2500 } \\ \text { and }\end{array} & 5 & \text { Vacation }\end{array}\right)$

Year 3
Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours
Co-op 0 CHEM 2311 Elective 4 Co-op 0

| Elective | 4 Elective | 4 |  |
| :--- | :--- | :--- | :--- |
| Elective | 4 |  |  |
| Marine <br> biology <br> elective | 5 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3303, | 4 Vacation | 0 Co-op | 0 |
|  | 3307, or <br> 3315 |  |  |  |
|  | Elective | 4 |  |  |
|  | Marine <br> biology <br> elective | 5 |  |  |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0BIOL 4701,  <br>  ENVR 4900, <br> or ENVR <br> 4997 <br>  Elective |  |
|  | Elective | 4 |
|  | Marine <br> biology <br> elective | 5 |
| 0 | $14-17$ |  |

Total Hours: 133-136

## Marine Biology-Three Seas Program, <br> Five Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| BIOL 1107 <br> and <br> BIOL 1108 | 5 CHEM 1214 <br> and CHEM 1215 and CHEM 1216 | 5 Vacation | 0 Vacation | 0 |
| CHEM 1211 and CHEM 1212 and CHEM 1213 | 5 EEMB 2400 | 4 |  |  |
| ENVR 1000 | 1 ENGW 1111 | 4 |  |  |
| MATH 1251 | 4 PHYS 1145 <br> and PHYS 1146 | 5 |  |  |
|  | 15 | 18 | 0 | 0 |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| BIOL 2301 <br> and <br> BIOL 2302 | 5 Co-op | 0 Co-op | 0 Vacation | 0 |
| EEMB 2302 <br> and <br> EEMB 2303 | 5 |  |  |  |
| EEMB 2700 <br> and <br> EEMB 2701 | 5 |  |  |  |
| EESC 2000 | 1 |  |  |  |
|  | 16 | 0 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CHEM 2311 | 5 EEMB 5516 |  |  |  |
| and | and | 5 Vacation | 0 Vacation | 0 |
| CHEM 2312 | EEMB 5517 |  |  |  |
| ENVR 2500 | 5 EEMB 5522 | 5 |  |  |
| and | and |  |  |  |
| ENVR 2501 | EEMB 5523 |  |  |  |

$\left.\begin{array}{lcccc}\begin{array}{l}\text { PHYS 1147 } \\ \text { and } \\ \text { PHYS 1148 }\end{array} & \begin{array}{l}\text { EEMB 5534 } \\ \text { and }\end{array} & 5 & & \\ & \text { EEMB 5535 }\end{array}\right)$

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| EEMB 5504 | 3 Co-op | 0 Co-op | 0 Vacation | 0 |
| EEMB 5506 | 3 |  |  |  |
| EEMB 5508 <br> and <br> EEMB 5509 | 3 |  |  |  |
| EEMB 5512 | 1 |  |  |  |
| EEMB 5518 | 2 |  |  |  |
| EEMB 5520 | 2 |  |  |  |
| EEMB 5528 | 3 |  |  |  |
| EEMB 5532 | 3 |  |  |  |
|  | 20 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ENGW 3303, | 4 BIOL 4701, | $1-4$ |
| 3307, or | ENVR 4900, <br> or ENVR <br> 3315 | 4997 |
|  | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 16 | $13-16$ |
|  |  |  |

Total Hours: 133-136

## Marine Biology-Three Seas Program, Five Years, Two Co-ops in Summer 2/Fall

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 1107 <br> and <br> BIOL 1108 | CHEM 1214 <br> and <br> CHEM 1215 <br> and <br> CHEM 1216 | 5 Vacation | 0 Vacation | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| BIOL 2301 | 5 EEMB 2700 | 5 Vacation | 0 Co-op | 0 |
| and | and |  |  |  |
| BIOL 2302 | EEMB 2701 |  |  |  |
| EEMB 2302 <br> and | 5 ENVR 2500 | 5 |  |  |
| EEMB 2303 | and |  |  |  |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 BIOL 4701, | $1-4$ |
|  | ENVR 4900, |  |
|  | or ENVR |  |
|  | 4997 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | $13-16$ |  |

Total Hours: 133-136

## Computer Science and Environmental Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
Computer Science Courses
Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| CS 1800 | Discrete Structures |  |
| :--- | :--- | ---: |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 Fundamentals of Computer Science 1 | 5 |  |
| and CS 2501 | and Lab for CS 2500 |  |
| CS 2510 Fundamentals of Computer Science 2 | 5 |  |
| CS CS 2511 | and Lab for CS 2510 |  |
| and CS 2801 | Logic and Computation <br> and Lab for CS 2800 | 5 |


| Computer Science Required Courses |  |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Senior Seminar
CS $4000 \quad$ Senior Seminar 1
or THTR 1170 The Eloquent Presenter

## Environmental Science Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Environmental Science Required Courses |  |  |
| ENVR 1200 and ENVR 1201 | Dynamic Earth and Lab for ENVR 1200 | 5 |
| $\begin{aligned} & \text { ENVR } 5210 \\ & \text { or ENVR } 5250 \end{aligned}$ | Environmental Planning Geology and Land-Use Planning | 4 |
| ENVR 4900 or ENVR 4997 | Earth and Environmental Science Capstone Senior Thesis | 1 |
| Complete one of the following sequences: |  | 5 |
| ENVR 1202 and ENVR 1203 | History of Earth and Life and Interpreting Earth History |  |
| ENVR 2310 and ENVR 2311 | Earth Materials and Lab for ENVR 2310 |  |
| Environmental Science Integrative Courses |  |  |
| Complete at least tw | of the following: | 8-10 |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |  |


| ENVR 3418 | Geophysics |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENVR } 4500 \\ & \text { and ENVR } 4501 \end{aligned}$ | Applied Hydrogeology and Lab for ENVR 4500 |  |
| Environmental Science Electives |  |  |
| If you complete more than two environmental science integrative courses (above), they will count as environmental science electives. |  |  |
| Complete four of the following: |  | 16-20 |
| ENVR 1101 | Environmental Science |  |
| ENVR 2340 and ENVR 2341 | Earth Landforms and Processes and Lab for ENVR 2340 |  |
| ENVR 3400 | Field Geology |  |
| ENVR 3410 | Environmental Geochemistry |  |
| ENVR 4106 and ENVR 4107 | Coastal Processes and Lab for ENVR 4106 |  |
| ENVR 4504 | Environmental Pollution |  |
| ENVR 4505 | Wetlands |  |
| ENVR 4563 | Advanced Spatial Analysis |  |
| ENVR 5190 | Soil Science |  |
| ENVR 5201 | Geologic Field Seminar |  |
| ENVR 5230 and ENVR 5231 | Structural Geology and Lab for ENVR 5230 |  |
| ENVR 5240 and ENVR 5241 | Sedimentary Basin Analysis and Lab for ENVR 5240 |  |
| ENVR 5242 and ENVR 5243 | Ancient Marine Life and Lab for ENVR 5242 |  |
| ENVR 5248 | Marine Geology |  |
| ENVR 5270 and ENVR 5271 | Glacial and Quaternary History and Lab for ENVR 5270 |  |


| Additional Requirements |  |
| :--- | :--- |
| Code | Title |

## Calculus

and CHEM 1212
and CHEM 1213
CHEM 1214
and CHEM 1215
and CHEM 1216

| MATH 1251 | Calculus and Differential Equations for | 4 |
| :---: | :--- | :---: |
| or MATH 1341 | Biology 1 | Calculus 1 for Science and Engineering |


| MATH 3081 | Probability and Statistics | 4 |
| :--- | :--- | :--- |
| Chemistry |  |  |
| CHEM 1211 | General Chemistry 1 | 5 |

## Hours

and Lab for CHEM 1211
and Recitation for CHEM 1211
General Chemistry 2
and Lab for CHEM 1214
and Recitation for CHEM 1214

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  | Technopolitics |

## IA $5240 \quad$ Cyberlaw: Privacy, Ethics, and Digital Rights

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title Hours
Complete six general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

137 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CS 1200 |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | 0 Vacation | 0 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | Elective | 4 |  |  |
| ENVR 1200 and ENVR 1201 | 5 | Elective | 4 |  |  |
| ENGW 1111 | 4 |  |  |  |  |
|  | 19 |  | 18 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | 5 | CHEM 1214 <br> and <br> CHEM 1215 <br> and <br> CHEM 1216 | 5 Vacation | 0 Co-op | 0 |
| CS 3500 | 4 | CS 1210 | 1 |  |  |


| Elective | 4 CS 4800 | 4 |  |  |
| :--- | ---: | ---: | :--- | :--- |
| Elective | 4 Elective | 4 |  |  |
|  | Elective | 4 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3200 | 4 Vacation | 0 Co-op | 0 |
|  | MATH 1251 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3800 | 4 Vacation | 0 Vacation | 0 |
|  | ENGW 3302 | 4 |  |  |
|  | MATH 1252 | 4 |  |  |
|  | Elective | 4 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| MATH 3081 | 4 CS 4000 | 1 |
| SOCL 4528 | 4 CS 4500 | 4 |
| Elective | 4 ENVR 4900 | 1 |
| Elective | 4 Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 16 | 18 |

Total Hours: 138

## Environmental Geology and Chemistry, BS

## Jonathan Grabowski, PhD

## Associate Professor

Marine Science Center, Nahant
$781.581 .370 \times 337$
Michael P. Pollastri, PhD
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The Departments of Marine and Environmental Sciences and Chemistry provide education in basic environmental science and chemistryrelated disciplines. The overall objective of this combined major is to provide the fundamental scientific background and practical training for students as they prepare for environmental and chemically related careers or advanced study in fields including the traditional specialties such as toxicology, pollution, bio-remediation, environmental protection, education, law, and other endeavors that may draw upon an understanding of the chemical basis of the environment and the changes that will likely result from global warming.

Key general objectives are the development of qualitative and quantitative problem-solving skills and effective communication
skills. Specific learning objectives for this combined major include the development of conceptual understanding and problem-solving abilities in the fundamental dynamics between the environment and its chemistry, be it analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry. Students will perform quantitative measurements; learn proper laboratory practices, including safety; develop proficiency with modern instruments and computers for data acquisition and analysis; and learn the relevance of chemistry within the context of the abiotic and biotic environments.

Most of our combined majors will 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. Students in this major may also undertake research projects 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.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Environmental Geology Breadth Courses

| Code <br> Mathematics <br> MATH 1241 | Title | Hours |
| :--- | :--- | ---: |
| MATH 1242 <br> Science Requirement | Calculus 1 | 4 |
| Complete one of the following options: <br> Biology Option: | 4 |  |
| BIOL 1111 |  |  |
| and BIOL 1112 | General Biology 1 <br> and Lab for BIOL 1111 | 10 |
| BIOL 1113 <br> and BIOL 1114 | General Biology 2 <br> Physics Option: | and Lab for BIOL 1113 |
| PHYS 1161 <br> and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |  |
| PHYS 1165 <br> and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |  |

## Environmental Geology Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Earth Foundations |  | 5 |
| ENVR 1200 <br> and ENVR 1201 | Dynamic Earth <br> and Lab for ENVR 1200 | 5 |
| ENVR 1202 | History of Earth and Life <br> and Interpreting Earth History |  |



| Elective | 4 |
| ---: | ---: |
| 0 | 17 |

Total Hours: 136

## Information Science and Environmental Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Information Science Courses
Code Title Hours

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |  |


| Computer Science Fundamental Courses |  |  |
| :---: | :---: | :---: |
| A grade of C - or higher is required: |  |  |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| CS 2500 and CS 2501 | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |


| Computer Science Required Courses |  |  |
| :--- | :--- | :--- |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Information Science Required Courses | 4 |  |
| :--- | :--- | :--- |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and <br> Development | 4 |
| IS 4800 | Empirical Research Methods <br> (Integrative course) |  |

## Environmental Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Environmental Science Courses |  |  |
| ENVR 1101 | Environmental Science | 4 |
| ENVR 1200 | Dynamic Earth |  |
| and ENVR 1201 | and Lab for ENVR 1200 | 5 |
| ENVR 5210 | Environmental Planning |  |
| or ENVR 5250 | Geology and Land-Use Planning | 4 |


| ENVR 4900 | Earth and Environmental Science Capstone | 1 |
| :---: | :---: | :---: |
| or ENVR 4997 | Senior Thesis |  |
| Integrative Course |  |  |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 | 5 |
| Environmental Science Electives |  |  |
| Complete three of th | following: | 12 |
| ENVR 1202 <br> and ENVR 1203 | History of Earth and Life and Interpreting Earth History |  |
| ENVR 3400 | Field Geology |  |
| ENVR 3410 | Environmental Geochemistry |  |
| ENVR 3418 | Geophysics |  |
| ENVR 4106 <br> and ENVR 4107 | Coastal Processes and Lab for ENVR 4106 |  |
| ENVR 4500 and ENVR 4501 | Applied Hydrogeology and Lab for ENVR 4500 |  |
| ENVR 4504 | Environmental Pollution |  |
| ENVR 4505 | Wetlands |  |
| ENVR 5201 | Geologic Field Seminar |  |
| ENVR 5242 <br> and ENVR 5243 | Ancient Marine Life and Lab for ENVR 5242 |  |
| Sustainability Focus Courses |  |  |
| PHIL 1180 | Environmental Ethics |  |
| Complete two of the following: |  | 8 |
| ECON 3423 | Environmental Economics |  |
| ENVR 4515 | Sustainable Development |  |
| ENVR 5202 | Environmental Science Field Seminar Abroad |  |
| HIST 3412 | Global Environmental History |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| SOCL 1246 | Environment and Society |  |

## Additional Requirements

Code Title Hours

Mathematics and Statistics

| ECON 2350 | Statistics | 4 |
| :--- | :--- | :--- |
| MATH 1251 | Calculus and Differential Equations for | 4 |

or MATH 1341 Calculus 1 for Science and Engineering

## Chemistry

Complete one of the following:
CHEM 1211 General Chemistry 1
and CHEM 1212 and Lab for CHEM 1211
and CHEM 1213 and Recitation for CHEM 1211
CHEM 1151 General Chemistry for Engineers
and CHEM 1152 and Lab for CHEM 1151
and CHEM 1153 and Recitation for CHEM 1151

## Economics

ECON 1116 Principles of Microeconomics 4

## Computing and Social Issues

| Code | Title | Hours |
| :--- | ---: | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |


| SOCL 1280 | The Twenty-First-Century Workplace |
| :--- | :--- |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |


| Computer Science English Requirement |  |  |
| :--- | :--- | ---: |
| Code Title | Hours |  |
| College Writing |  | 4 |
| ENGW 1111 | First-Year Writing | 4 |

## Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title Hours

Complete five general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required

## Plan of Study

Five Years, Two Co-ops in Summer 2/Fall

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1200 | $\begin{aligned} & 1 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | 0 Vacation | 0 |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 ENVR 1101 | 4 |  |  |
| ENGW 1111 | 4 IS 2000 | 4 |  |  |
| ENVR 1200 <br> and <br> ENVR 1201 | 5 |  |  |  |
|  | 19 | 18 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CHEM 1211 <br> and <br> CHEM 1212 <br> and <br> CHEM 1213 | ENVR 3300 <br> and <br> ENVR 3301 | 5 Vacation | 0 Co-op | 0 |
| CS 3500 | 4 CS 1210 | 1 |  |  |
| IS 3500 | 4 CS 4800 | 4 |  |  |
| ENVR | 4 PHIL 1180 | 4 |  |  |
| Elective | Elective | 4 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3200 | 4 Vacation | 0 Co-op | 0 |
|  | MATH 1251 | 4 |  |  |
|  | IS 4800 | 4 |  |  |
|  | ENVR | 4 |  | 0 |
|  | Elective |  | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | $\begin{aligned} & 0 \text { ENVR } 5210 \\ & \text { or } 5250 \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
|  | ENGW 3302 or 3315 | 4 |  |  |
|  | Sustainability <br> Focus <br> Course | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ECON 1116 | 4 ECON 2350 | 4 |
| Computing and Social Issues Course | 4 ENVR Elective | 4 |
| Sustainability Focus Course | $\begin{aligned} & 4 \text { ENVR } 4900 \\ & \text { or } 4997 \end{aligned}$ | 1,4 |
| Elective | 4 Elective | 4 |
|  | 16 | 13-16 |

## Environmental Science, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Course Work

Introductory Course Work
Complete one of the following:

| BIOL 1121 | Basic Microbiology |
| :--- | :--- |
| and BIOL 1122 | and Lab for BIOL 1121 |
| ENVR 1101 | Environmental Science |

Science or Engineering
Complete one of the following courses based on your major: 4-5
Engineering Majors

| CHEM 1214 | General Chemistry 2 |
| :--- | :--- |
| and CHEM 1215 | and Lab for CHEM 1214 |

Other Majors

| CHEM 2311 | Organic Chemistry 1 |
| :--- | :--- |
| and CHEM 2312 | and Lab for CHEM 2311 |
| CHEM 2321 | Analytical Chemistry |
| and CHEM 2322 | and Lab for CHEM 2321 |
| CIVE 2334 | Environmental Engineering 1 |
| Social Sciences |  |
| Complete one of the following: |  |
| ECON 3423 | Environmental Economics |
| PHIL 1180 | Environmental Ethics |
| POLS 2395 | Environmental Politics and Policy |
| SOCL 1246 | Environment and Society |
| SOCL 3485 | Environment, Technology, and Society |

## Electives

Complete any two courses from the following. Only one of
the courses may be in the 1000-1999 range. Only one course
may be selected from a group:
Physics Group
For nonengineering/nonscience majors only:

| PHYS 1132 | Energy, Environment, and Society |
| ---: | :--- |
| Biology Group |  |
| EEMB 2302 | Ecology |
| EEMB 2618 | Vertebrate Zoology |
| EEMB 5560 | Entomology |
| EEMB 5562 | Herpetology |
| EEMB 5564 | Ornithology |
| EEMB 5566 | Mammalogy |
| EEMB 5568 | Wildlife Biology |


| Environmental Planning Group |  |
| :--- | :--- |
| ENVR 5210 | Environmental Planning |
| ENVR 5250 | Geology and Land-Use Planning |
| Geology Group |  |
| ENVR 2340 | Earth Landforms and Processes |
| and ENVR 2341 | and Lab for ENVR 2340 |
| ENVR 4504 | Environmental Pollution |
| ENVR 5190 | Soil Science |
| Hydrogeology Group |  |
| ENVR 4500 | Applied Hydrogeology |
| and ENVR 4501 | and Lab for ENVR 4500 |
| ENVR 5280 |  |
| ENVR 5282 |  |

## Geographic Information Systems Group

ENVR $3300 \quad$ Geographic Information Systems
and ENVR 3301 and Lab for ENVR 3300

## Civil Engineering Group

CIVE 4534
Environmental Engineering 2

## CIVE $5536 \quad$ Hydrologic Engineering

## 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

See program advisor for details.

## Environmental Safety Program

See program advisor for details.

## GPA Requirement

2.000 GPA required in the minor

## Environmental Geology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| ENVR 1200 | Dynamic Earth <br> and ENVR 1201 | and Lab for ENVR 1200 |
| :--- | :--- | ---: |
| ENVR 1202 | History of Earth and Life |  |
| and ENVR 1203 | and Interpreting Earth History | 5 |
| ENVR 2310 | Earth Materials | 5 |
| and ENVR 2311 | and Lab for ENVR 2310 | 5 |
| ENVR 5210 | Environmental Planning | 4 |
| $\quad$ or ENVR 5250 | Geology and Land-Use Planning |  |

## Geology Elective

Complete one ENVR course.

## GPA Requirement

2.000 GPA required in the minor

## Geology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

ENVR 1200 Dynamic Earth 5 and ENVR 1201
ENVR 1202
and ENVR 1203
ENVR 2310
and ENVR 2311
ENVR 3000 Igneous Petrology and Volcanology
and ENVR 3001
and Lab for ENVR 1200
History of Earth and Life
and Interpreting Earth History
Earth Materials
and Lab for ENVR 2310
Igneous Petrology and
and Lab for ENVR 3000

## Geology Elective

Complete one ENVR course.

## GPA Requirement

2.000 GPA required in the minor

## Marine Biology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Restrictions

This minor is not available for students who major in biology or any combined major that involves biology. Biology majors interested in marine biology should consider the major in marine biology.

## Required Courses

| BIOL 1111 | General Biology 1 |
| :--- | :--- |
| and BIOL 1112 | and Lab for BIOL 1111 |
| or BIOL 1107 <br> and BIOL 1108 | Foundations of Biology |
| and Lab for BIOL 1107 |  |
| BIOL 1113 | General Biology 2 |
| and BIOL 1114 | and Lab for BIOL 1113 |

## Elective Courses

Complete three of the following: 7-15

| EEMB 2616 | Invertebrate Zoology |
| :--- | :--- |
| and EEMB 2617 |  |
| and Lab for EEMB 2616 |  |

## Breadth Course-Science

To provide breadth of knowledge, complete one additional areas or from the following:

| PSYC 3458 | Biological Psychology |
| :--- | :--- |
| PSYC 4510 | Psychopharmacology |

## GPA Requirement

2.000 GPA required in the minor

## Marine Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete four courses from the following. Two courses must 8-16 be above the introductory level:

## Humanities

| ENVR 2941 | Ocean Science and Public Policy |
| :--- | :--- |
| ENVR 2942 | Maritime History and Culture: The <br> Caribbean |
| ENVR 2943 | Marine Environmental History: The <br> Caribbean |
| ENVR 3102 | Maritime Studies |
| HIST 2232 | History of Boston |
| MARS 3305 | Maritime History of New England |
| MARS 3310 | Water Resources Policy and <br> Management |

## Sciences

| EEMB 1122 | Physical Oceanography |
| :--- | :--- |
| EEMB 1123 | Biological Oceanography |
| EEMB 1450 | Introduction to Marine Biology |
| EEMB 2616 | Invertebrate Zoology |
| EEMB 5504 | Biology of Corals |
| EEMB 5506 | Biology and Ecology of Fishes |
| EEMB 5508 | Marine Birds and Mammals |
| and EEMB 5509 | and Lab for EEMB 5508 |
| EEMB 5512 | Tropical Terrestrial Ecology |
| EEMB 5516 | Oceanography |
| and EEMB 5517 | and Lab for EEMB 5516 |
| EEMB 5518 | Ocean and Coastal Processes |
| EEMB 5520 | Coral Reef Ecology |
| EEMB 5522 | Experimental Design Marine Ecology |
| and EEMB 5523 | and Lab for EEMB 5522 |
| EEMB 5528 | Marine Conservation Biology |
| EEMB 5532 | Physiological and Molecular Marine |

EEMB $5534 \quad$ Marine Invertebrate Zoology and
and EEMB 5535 Botany
and Lab for EEMB 5534
EEMB 5536 Ocean and Coastal Sustainability
EEMB 5589 Diving Research Methods
ENVR 1120 Oceans and Coasts
ENVR 1121 Marine Resources
ENVR 3101 Nautical Science
ENVR 3100 Oceanography
ENVR 3103 Oceanographic Field Methods
ENVR 3104 Advanced Oceanographic Field Methods
ENVR $3105 \quad$ Practical Oceanographic Research
ENVR 4106 Coastal Processes
and ENVR 4107 and Lab for ENVR 4106
ENVR 4505 Wetlands
ENVR 5210 Environmental Planning

| ENVR 5242 <br> and ENVR 5243 | Ancient Marine Life <br> and Lab for ENVR 5242 |
| :--- | :--- |
| ENVR 5244 <br> and ENVR 5245 | Sedimentation <br> and Lab for ENVR 5244 |
| ENVR 5248 | Marine Geology |
| MARS 3200 | Marine Studies |
| MARS 3210 | Marine Mammals |
| MARS 3300 | The Ocean World |
| MARS 3325 | Coastal Zone Management |
| MARS 3430 | Biology of Whales |
| MARS 4500 | Advanced Seminar in Marine Studies |

## Marine-Related Skill

Complete one of the following:

## ENVR $3101 \quad$ Nautical Science

Certification in a skill such as scuba, by a Merchant Marine license, or by a comparable level of achievement determined by the 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

## Mathematics

Website (http://www.northeastern.edu/cos/mathematics)

## Christopher K. King, PhD

Professor and Chair
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Solomon M. Jekel, Associate Professor and Head Advisor, s.jekel@northeastern.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.

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.

## Academic Progression Standards

Students who begin as freshman mathematics majors must, after the fourth semester, satisfy the following:

1. Have completed at least six of their required mathematics and physics courses
2. Have a grade average of $C$ or better in the following courses:

| MATH 1365 | Introduction to Mathematical <br> Reasoning | 4 |
| :--- | :--- | :---: |
| MATH 1341 | Calculus 1 for Science and <br> Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and <br> MATH 2321 | Engineering |
|  | Calculus 3 for Science and <br> MATH 2331 | 4 |
|  | Linear Algebra | 4 |

3. Have a grade-point average (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:

1. Have completed at least four of their required mathematics and physics courses
2. Have a GPA of at least 2.000 in all required mathematics and physics courses
3. Have grades of $C$ or better in the following courses (if already taken):

| MATH 1365 | Introduction to Mathematical <br> Reasoning | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and <br> Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and <br> MATH 2321 | Engineering <br> Calculus 3 for Science and <br> MATH 2331 |
|  | Engineering | 4 |
|  | Linear Algebra | 4 |

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.

## Programs

Bachelor of Arts (BA)

- Mathematics (p. 514)


## Bachelor of Science (BS)

- Mathematics (p. 515)
- Biology and Mathematics (p. 517)
- Computer Science and Mathematics (p. 518)
- Economics and Mathematics (p. 520)
- Graphic and Information Design and Mathematics (p. 521)
- Mathematics and Business Administration (p. 522)
- Mathematics and Physics (p. 525)


## Dual Degrees

- Mathematics, BS/MS (p. 527)
- Computer Science and Mathematics, BS/MS (p. 526)


## Minor

- Mathematics (p. 528)


## Mathematics, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Mathematics Major Grade Requirement

A grade of $C$ or higher is required in all mathematics courses numbered 3000 and below and in Co-op and Experiential Learning Reflection Seminar 2 (MATH 4000).

## Mathematics Major Requirements

| Problem Solving |  |  |
| :--- | :--- | :--- |
| MATH 1365 | Introduction to Mathematical <br> Reasoning | 4 |
| History of Mathematics  <br> MATH 2201 History of Mathematics <br> Calculus  <br> MATH 1341 Calculus 1 for Science and Engineering | 4 |  |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Intermediate and Advanced Mathematics | 4 |  |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3150 | Real Analysis | 4 |
| or MATH 4565 | Topology | 4 |
| MATH 3175 | Group Theory | 4 |
| MATH 3560 | Geometry | 4 |


| or MATH 3527 | Number Theory |
| :--- | :--- | :--- |
| Co-op Reflections |  |$\quad$| Co-op and Experiential Learning |  |
| :--- | :--- |
| MATH 3000 | Reflection Seminar 1 <br> Co-op and Experiential Learning Reflection <br> Seminar 2 |
| Mathematics Elective | 1 |
| Complete one course in the following range: | 4 |

```
MATH 3001 to MATH 4899
```

Required Physics
Physics 1
Complete one of the following: 5
PHYS $1161 \quad$ Physics 1
and PHYS 1162 and Lab for PHYS 1161
PHYS $1151 \quad$ Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for
PHYS 1151
Physics 2
Complete one of the following: 5

| PHYS 1165 <br> and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |
| :--- | :--- |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 <br> and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 |
| Capstone |  |
| Complete one of the following:  <br> MATH 4025 Applied Mathematics Capstone <br> MATH 5131 Introduction to Mathematical Methods <br> and Modeling <br> MATH 4020 Research Capstone |  |

## Mathematics Major Credit Requirement

Complete 54 semester hours in the major.

## Upper-Division Electives

Note: Courses used as upper-division electives do not count toward the major or NUpath.

Complete three general electives numbered 3000 or above.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| MATH 1365 | 4 PHYS 1165 | 4 |  |  |
| Elective | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 Elective | 4 |  |  |
| PHYS 1162 | 1 ENGW 1111 | 4 |  | 0 |
| MATH 1000 | 1 | 17 | 0 | 0 |
|  | 18 |  |  |  |

$\left.\begin{array}{lcccr}\text { Year 2 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { MATH 2321 } & 4 \text { MATH 2201 } & 4 & \text { Vacation } & 0 \text { Co-op }\end{array}\right) 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 MATH 3560 or 3527 | 4 MATH elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
|  | Foreign language core course | 4 |  |  |
|  | Elective | 4 |  |  |
|  | MATH 3000 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MATH 3150 | 4 Upper- <br> division <br> elective | 4 Co-op | 0 |
|  | 4 Upper- <br> division <br> elective | 4 |  |  |
| Elective <br> Upper- <br> division <br> elective <br> MATH 4000 | 4 | 4 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 MATH 3175 | 4 |
|  | MATH | 4 |
|  | elective |  |
|  | MATH 4025 | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS 1161 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| PHYS 1162 | 1 PHYS 1165 | 4 |  |  |
| MATH 1365 | 4 PHYS 1166 | 1 |  |  |
| MATH 1341 | 4 ENGW 1111 | 4 |  |  |
| MATH 1000 | 1 Elective | 4 |  | 0 |
| Elective | 4 |  | 0 |  |
|  | 18 | 17 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 2331 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Foreign <br> language <br> core course | 4 |  |  | 0 |
| EESC 2000 | 1 |  |  | 0 |
|  | 17 | 0 |  | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2201 | 4 Co-op | 0 Co-op | 0 MATH <br> elective | 4 |
| Elective | 4 |  | Elective |  |, 4

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MATH 3560 <br> or 3527 | 4 |  | Elective | 4 |
| MATH 4000 | 1 |  |  |  |
| Foreign <br> language <br> core course | 4 |  |  |  |
| Elective | 4 |  |  | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | :---: |
| MATH 3150 | 4 MATH 3175 | 4 |
| MATH <br> elective | 4 MATH 4025 | 4 |
| Elective | 4 Upper- <br> division <br> elective | 4 |
| Upper- <br> division <br> elective | Upper- <br> division <br> elective | 4 |
|  | 16 | 16 |

Total Hours: 134

## Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics Major Grade Requirement

A grade of $C$ or higher is required in all mathematics courses numbered 3000 and below and in Co-op and Experiential Learning Reflection Seminar 2 (MATH 4000).

## Mathematics Major Requirements

Problem Solving

| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| :---: | :---: | :---: |
| Calculus |  |  |
| A grade of C or higher is required: |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Intermediate and Advanced Mathematics |  |  |
| MATH 2331 | Linear Algebra | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 3150 | Real Analysis | 4 |
| MATH 3175 | Group Theory | 4 |
| Co-op Reflections |  |  |
| MATH 3000 | Co-op and Experiential Learning Reflection Seminar 1 | 1 |
| or MATH 4000 | Co-op and Experiential Learning Reflection Seminar 2 |  |


| Mathematics Electives |
| :--- |
| Complete four courses in the following range: |

MATH 3101 to MATH 4899
Required Physics
Physics 1
Complete one of the following:
\(\left.\begin{array}{ll}PHYS 1161 \& Physics 1 <br>

and PHYS 1162 \& and Lab for PHYS 1161\end{array}\right]\)| PHYS 1151 | Physics for Engineering 1 |
| :--- | :--- |
| and PHYS 1152 | and Lab for PHYS 1151 <br> and PHYS 1153 Interactive Learning Seminar for <br> and <br> PHYS 1151 |
|  | Physics 2 |


| PHYS 1165 | Physics 2 |
| :--- | :--- |
| and PHYS 1166 | and Lab for PHYS 1165 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 | and Lab for PHYS 1155 |
| and PHYS 1157 | and Interactive Learning Seminar for <br> PHYS 1155 |

## Capstone

Complete one of the following: 4

[^12]| MATH 5131 | Introduction to Mathematical Methods <br> and Modeling |
| :--- | :--- |
| MATH 4020 | Research Capstone |

## Mathematics Major Credit Requirement

Complete 66 semester hours in the major.

## Upper-Division Electives

Note: Courses used as upper-division electives do not count toward the major or NUpath.

Complete three general electives numbered 3000 or above.

## Program Requirement

128 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 | 4 MATH 1342 | 4 | Vacation | 0 Vacation |$\quad 0$

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | O MATH <br> elective | 4 MATH <br> elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
|  | MATH 3081 | 4 |  |  |
| Upper- <br> division <br> elective | 4 |  | 0 |  |
|  | MATH 3000 | 1 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MATH 3150 | 4 MATH | 4 Co-op | 0 |
|  | elective |  |  |  |
|  | MATH <br> elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Upper- <br> division <br> elective | 4 |  |  |


|  | MATH 4000 | 1 |  |
| :--- | :---: | :---: | :---: | ---: |
| Year 5 | 0 | 17 | 8 |
| Fall | Hours Spring | Hours |  |
| Co-op | MATH 3175 | 4 |  |
|  | MATH 4025 <br> elective <br> Mpper- <br> division <br> elective | 4 |  |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS 1161 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| PHYS 1162 | 1 PHYS 1165 | 4 |  |  |
| MATH 1365 | 4 PHYS 1166 | 1 |  |  |
| MATH 1341 | 4 ENGW 1111 | 4 |  | 0 |
| MATH 1000 | 1 Elective | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 2331 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  | 0 | 0 |

$\left.\begin{array}{lcccr}\text { Year } 3 & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { MATH 2341 } & 4 \text { Co-op } & 0 \text { Co-op } & 0 \text { MATH } \\ \text { elective }\end{array}\right] 4$

| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 MATH elective | 4 |
| MATH 3081 | 4 |  | Elective | 4 |
| MATH 4000 | 1 |  |  |  |
| MATH 3150 | 4 |  |  |  |
| Upperdivision elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 8 |


| Year 5 | Hours Spring | Hours |
| :--- | :---: | :---: |
| Fall | 4 Elective | 4 |
| MATH <br> elective | 4 MATH 4025 | 4 |
| MATH <br> elective | 4 Upper- <br> division <br> elective | 4 |
| Upper- <br> division <br> elective | 4 MATH |  |
| Elective | 16 | 16 |

Total Hours: 134

## Biology and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Biology Major Requirements

Code Title Hours

## Introduction to College

| BIOL 1000 | Biology at Northeastern | 1 |
| :---: | :--- | :--- |
| or MATH 1000 | Mathematics at Northeastern |  |

## Required Biology

| Foundations |  |  |
| :---: | :---: | :---: |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| BIOL 2301 <br> and BIOL 2302 | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 <br> and Lab for CHEM 1211 | 5 |
| CHEM 1214 <br> and CHEM 1215 | General Chemistry 2 <br> and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 <br> and Lab for CHEM 2311 | 5 |


| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| :---: | :---: | :---: |
| Biochemistry |  |  |
| BIOL 2323 and BIOL 2324 | and | 5 |
| Organismal and Population Biology |  |  |
| Complete one of the | following: | 4-5 |
| BIOL 2321 and BIOL 2322 | Microbiology and Lab for BIOL 2321 |  |
| BIOL 2327 | Human Parasitology |  |
| EEMB 2302 <br> and EEMB 2303 | Ecology and Lab for EEMB 2302 |  |
| EEMB 2400 | Introduction to Evolution |  |
| EEMB 2610 <br> and EEMB 2611 | Plant Biology and Lab for EEMB 2610 |  |
| EEMB 2616 and EEMB 2617 | Invertebrate Zoology and Lab for EEMB 2616 |  |
| EEMB 2618 and EEMB 2619 | Vertebrate Zoology and Lab for EEMB 2618 |  |
| EEMB 2700 and EEMB 2701 | Marine Biology and Lab for EEMB 2700 |  |

## Mathematics Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus 1 |  | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| or MATH 1251 | Calculus and Differential Equations for Biology 1 |  |

## Calculus 2 and Calculus 3

| MATH 1342 or MATH 1252 | Calculus 2 for Science and Engineering <br> Calculus and Differential Equations for Biology 2 | 4 |
| :---: | :---: | :---: |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Physics |  |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 | 5 |
| Required Mathematics Courses |  |  |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |


| Mathematics Electives |  |
| :--- | ---: |
| Complete three of the following: |  |
| MATH $2331 \quad$ Linear Algebra |  |
| MATH 3001 to MATH 4899 |  |
| Additional Requirements |  |
| Code Title | Hours |

Experiential Learning Introduction

| EESC 2000 | Professional Development for Co-op | 1 |
| :--- | :--- | ---: |
| MATH 3000 | Co-op and Experiential Learning <br> Reflection Seminar 1 | 1 |
| Biology/Mathematics Integrative Courses |  |  |
| Complete two of the following: | Co-op and Experiential Learning Reflection <br> Seminar 2 | $8-10$ |


| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 |  |
| BIOL 3405 | Neurobiology |  |
| BIOL 5569 | Advanced Microbiology |  |
| BIOL 5581 | Biological Imaging |  |
| BIOL 5591 | Advanced Genomics |  |
| MATH 4581 | Statistics and Stochastic Processes |  |
| MATH 7343 | Applied Statistics |  |
| BINF 6308 | Bioinformatics Computational Methods 1 |  |
| BINF 6309 | Bioinformatics Computational Methods 2 |  |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3307 | Advanced Writing in the Sciences | 4 |
| Capstone |  |  |
| Complete one of the following: |  | 4 |
| BIOL 4701 | Biology Capstone |  |
| MATH 4020 | Research Capstone |  |
| MATH 4025 | Applied Mathematics Capstone |  |
| MATH 5131 | Introduction to Mathematical Methods and Modeling |  |

## Biology and Mathematics Combined-Major Credit/GPA Requirements

Complete 93 semester hours in the major with a cumulative GPA of 2.000 .

## Program Requirements

143 total semester hours required

## Computer Science and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

## Computer Science Fundamental Courses

A grade of C - or higher is required:

| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 (Integrative course) | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 (Integrative course) | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 3800 | Theory of Computation | 4 |
| CS 4300 | Computer Graphics (Integrative course) 1 | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |
| Computer Science Senior Seminar |  |  |
| $\text { CS } 4000$ <br> or THTR 1170 | Senior Seminar <br> The Eloquent Presenter | 1 |
| Computer Science Elective Courses |  |  |

## Computer Science Elective Courses

With advisor approval, directed study courses, project study course, and appropriate graduate courses may also be taken.
Complete two upper-division computer science courses from the following ranges:
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900
${ }^{1}$ CS 4300 satisfies the capstone requirement

| Mathematics Courses <br> Code <br> Calculus Courses | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |


| Mathematics Courses |  |  |
| :--- | :--- | :--- |
| MATH 2331 | Linear Algebra | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
|  | Algebra for Engineering |  |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 3175 | Group Theory | 4 |
| MATH 3527 | Number Theory | 4 |

Mathematics Electives
Complete three courses from the following range: 12
MATH 3001 to MATH 4999 but not MATH 4000

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses
Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |


| SOCL 3485 | Environment, Technology, and Society |
| :--- | :--- |
| SOCL 4528 | Computers and Society |
| ANTH 3418 | Wired/Unwired: Cybercultures and |
|  | Technopolitics |


| Computer Science English Requirement |  |  |
| :--- | :--- | ---: |
| Code Title | Hours |  |
| College Writing |  | 4 |
| ENGW 1111 | First-Year Writing | 4 |

## Advanced Writing in the Disciplines

ENGW 3302 Advanced Writing in the Technical 4
or ENGW 3315 Interdisciplinary Advanced Writing in the Disciplines

## Required General Electives

Code Title Hours

Complete seven general electives. 28

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 1800 } & 4 \text { CS } 2510 & 4 & \text { Vacation } & 0 \text { Vacation }\end{array}\right) 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 CS 4800 | 4 Vacation | 0 Co-op | 0 |
| MATH 2321 | 4 MATH 2331 | 4 |  |  |
| MATH 2341 | 4 MATH 3081 | 4 |  |  |


| Elective | 4 Elective | 4 |  |  |
| :--- | ---: | ---: | :--- | :--- |
| CS 1210 | 1 |  |  |  |
| 16 | 17 | 0 | 0 |  |


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | CS 3800 | 4 Elective | 4 Co-op | 0 |
|  |  | CS 4300 | 4 Elective | 4 |  |
|  |  | MATH 3175 | 4 |  |  |
|  |  | MATH 3000 | 1 |  |  |
|  |  | ENGW 3302 | 4 |  |  |
| 0 |  |  | 17 | 8 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4500 | 4 Elective | 4 Co-op | 0 |
|  | MATH 3527 | 4 Elective | 4 |  |
| MATH <br> undergraduate <br> elective | 4 |  |  |  |
| CS <br> undergraduat <br> elective | 4 |  | 0 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 SOCL 4528 | 4 |
|  | CS <br> undergraduatı <br> elective | 4 |
|  | CS 4000 | 1 |
|  | MATH <br> undergraduatı <br> elective | 4 |
| MATH <br> undergraduate <br> elective | 4 |  |
| 0 | 17 |  |

Total Hours: 135

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 2321 | 4 |  |  |  |
| MATH 2341 | 4 |  |  |  |


| Elective | 4 |  |  |  |
| :--- | :---: | :---: | :--- | :--- |
| CS 1210 | 1 |  |  |  |
|  | 17 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 4800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| MATH 2331 | 4 |  | Elective | 4 |
| MATH 3081 | 4 |  |  |  |
| MATH 3000 | 1 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4300 | 4 |  | Elective | 4 |
| MATH 3527 | 4 |  |  |  |
| ENGW 3302 | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4500 | 4 SOCL 4528 | 4 |
| MATH 3175 | 4 CS <br> undergraduatı <br> elective | 4 |
| MATH <br> undergraduate <br> elective | 4 CS 4000 | 1 |
| CS <br> undergraduatı <br> elective | 4 MATH <br> undergraduatı <br> elective | 4 |
| MATH <br> undergraduate <br> elective | 4 |  |
| 16 | 17 |  |

Total Hours: 135

## Economics and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Economics Requirements

Code Title Hours
Introduction to College

Hours
Introduction to College

| ECON 1000 or MATH 1000 | Economics at Northeastern <br> Mathematics at Northeastern | 1 |
| :---: | :---: | :---: |
| Required Economics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| Economics Electives |  |  |
| Complete four economics electives with not more than two at the introductory level: |  | 16 |
| Introductory |  |  |
| ECON 1200 to ECON 1990 |  |  |
| Intermediate/Advanced |  |  |
| ECON 2990 to ECON 3499 |  |  |
| ECON 3915 | Intermediate Selected Topics in Macroeconomics |  |
| ECON 3916 | Intermediate Selected Topics in Microeconomics |  |
| ECON 3990 | Elective |  |
| ECON 4600 to ECON 4681 |  |  |
| ECON 4915 to ECON 4916 |  |  |
| ECON 4965 | Undergraduate Teaching Experience 1 |  |
| ECON 4970 to ECON 4990 |  |  |
| ECON 4992 | Directed Study |  |
| ECON 4994 | Internship |  |

## Mathematics Requirements

Code Title Hours

Required Mathematics

| MATH 1365 | Introduction to Mathematical <br> Reasoning | 4 |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
| MATH 2331 | Algebra for Engineering |  |
| MATH 3081 | Linear Algebra | 4 |

Mathematics Electives
Complete two courses in the following range: 8
MATH 3001 to MATH 4999
The following courses are recommended:

| MATH 3150 | Real Analysis |
| :--- | :--- |
| MATH 4581 | Statistics and Stochastic Processes |

## Breadth Course

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |

## Integrative Requirements <br> Code Title

Advanced Writing in the Disciplines
Hours

| ENGW 3308 | Advanced Writing in the Social <br> Sciences | 4 |
| :--- | :--- | ---: |
| Integrative Course | 4 |  |
| Complete one of the following: | 4 |  |
| ECON 4692 | Senior Economics Seminar |  |
| MATH 4025 | Applied Mathematics Capstone |  |
| MATH 5131 | Introduction to Mathematical Methods <br> and Modeling |  |

Combined-Major GPA/Credit Requirement
Code Title Hours
A GPA of 2.000 is required in the following six courses:
ECON 1115 Principles of Macroeconomics
ECON 1116 Principles of Microeconomics
ECON 2315 Macroeconomic Theory
ECON 2316 Microeconomic Theory
ECON 3560 Applied Econometrics
MATH $3081 \quad$ Probability and Statistics
A cumulative GPA of 2.000 is required in all math courses.
A grade of $C$ or higher is required in all math courses numbered MATH 2999 or below; grades below $C$ will not count toward the degree.

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Graphic and Information Design and Mathematics, BS

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Graphic and Information Design Requirements

Code Title Hours

Art and Design at Northeastern
ARTF 1000 Art and Design at Northeastern 1
Art and Design Fundamentals
ARTF 1122 2D Fundamentals: Surface and Drawing 5
and ARTF 1123 and 2D Tools
ARTF 2220 4D Fundamentals: Sequence and 5
and ARTF 2221 Drawing
and 4D Tools
Art and Design History

| ARTH 2210 | Modern Art and Design History | 4 |
| :--- | :--- | :--- |
| ARTH 2215 | History of Graphic Design | 4 |
| Design |  |  |


| ARTG 1250 | Design Process Context and Systems | 4 |
| :---: | :---: | :---: |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools | 5 |
| ARTG 2252 | Graphic Design 1 | 4 |
| ARTG 3350 | Typography 2 | 4 |
| ARTG 3451 | Information Design 1 | 4 |
| Degree Project |  |  |
| ARTG 4550 | Design Degree Project 1 | 4 |
| Art and Design Electives |  |  |
| Complete one of th | llowing: | 4-5 |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| ARTG 2260 | Programming Basics |  |
| ARTF 1120 | Observational Drawing |  |
| ARTF 1121 | Conceptual Drawing |  |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3352 | Interaction Design Basics |  |
| ARTG 3450 | Graphic Design 2 |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 3700 | Interaction Design 2: Mobile |  |
| ARTG 4551 | Design Degree Project 2 |  |
| ARTG 4552 | Information Design 2 |  |
| ARTG 4553 | Environmental Design |  |
| ARTG 4554 | Typography 3 |  |
| Mathematics Requirements |  |  |
| Code | Title | Hours |
| Math Reasoning |  |  |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| Calculus |  |  |
| A grade of $C$ or higher is required: |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Intermediate Math |  |  |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Advanced Electives |  |  |
| Complete one of the following: |  | 4 |


| MATH 3150 | Real Analysis |
| :--- | :--- |
| MATH 3175 | Group Theory |
| MATH 3560 | Geometry |
| Mathematics Elective |  |
| MATH 4025 can count as an upper level math elective as well |  |
| as a capstone. |  |
| Complete one course in the following range: |  |
| MATH 3101 to MATH 4899 |  |

## Integrative Requirement

Code Title Hours
ARTG 3451 Information Design 1 4

## Combined-Major Credit Requirement

Complete 83 semester hours in the major.

## Program Requirement

128 total semester hours required

## Mathematics and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics Requirements

Code Title Hours Required Courses

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :---: | :---: | :---: |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 1365 | Introduction to Mathematical Reasoning | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Calculus and Linear Algebra (Required) and Differential Equations (Recommended) |  |  |
| Complete either Option 1 or Option 2 below: |  | 8 |
| Option 1 (Recommended) |  |  |
| MATH 2321 | Calculus 3 for Science and Engineering |  |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering |  |
| Option 2 |  |  |
| MATH 2321 | Calculus 3 for Science and Engineering |  |
| MATH 2331 | Linear Algebra |  |
| Co-op Reflections |  |  |
| MATH 3000 | Co-op and Experiential Learning Reflection Seminar 1 | 1 |


| or MATH 4000 | Co-op and Experiential Learning Reflectio Seminar 2 |  |
| :---: | :---: | :---: |
| Mathematics Electives |  |  |
| Complete three courses in the range MATH 3001 to MATH 5999. The following courses are recommended: |  | 12 |
| MATH 4681 | Probability and Risks |  |
| MATH 4682 | Theory of Interest and Basics of Life Insurance |  |
| MATH 4581 | Statistics and Stochastic Processes |  |
| Business Requirements |  |  |
| Code | Title | Hours |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  |  |
| FINA 2201 | Financial Management | 4 |
| Marketing |  |  |
| MKTG 2201 | Introduction to Marketing | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global Social Responsibility | 4 |
| Strategy in Action |  |  |
| STRT 4501 | Strategy in Action | 4 |
| Additional Requirements |  |  |
| Code | Title | Hours |
| Economics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| Co-op Preparation |  |  |
| BUSN 1103 | Professional Development for Business Co-op | 1 |
| or EESC 2000 | Professional Development for Co-op |  |

## Integrative Course

Note: Financial Risk Management (FINA 4512) also counts toward the finance concentration.

| Finance Concentration |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Finance Requirements |  |  |
| FINA 3301 | Corporate Finance | 4 |
| FINA 3303 | Investments | 4 |
| FINA 4512 | Financial Risk Management | 4 |
| Finance Electives |  |  |
| Complete one of the following: |  | 4 |
| $\begin{aligned} & \text { ENTR } 3520 \\ & \text { or FINA } 2720 \end{aligned}$ | Impact Investing and Social Finance Sustainability in the Business Environment |  |
| FINA 4604 | Fixed-Income Securities (Recommended) |  |
| FINA 4310 | Working Capital Management |  |
| FINA 4312 | Issues in Corporate Governance |  |
| FINA 4320 | International Financial Management |  |


| FINA 4410 | Valuation and Value Creation |
| :--- | :--- |
| FINA 4412 | Personal Financial Planning |
| FINA 4420 | Mergers and Acquisitions |
| FINA 4514 | Investment Banking |
| FINA 4516 | Real Estate Finance |
| FINA 4518 | Risk Management and Insurance |
| FINA 4526 | Core Topics in Alternative Investments |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation |
|  | Valuation, and Private Equity |
| FINA 4983 | Special Topics in Finance |
| Second Business Concentration (Optional) |  |
| A second business concentration is optional and may be chosen from |  |
| the following list. Requirements for the concentrations are listed below |  |
| (p. 523). |  |
| - Accounting |  |
| - Entrepreneurship and Innovation |  |
| - Interdisciplinary Business |  |
| - Management |  |
| - Management Information Systems |  |
| - Marketing | - Supply Chain Management |

## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Mathematics GPA Requirement

Minimum 2.000 GPA required in all mathematics courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses
Program Requirement
128 total semester hours required

CONCENTRATION IN ACCOUNTING

| Code <br> Required Courses | Title | Hours |
| :--- | :--- | ---: |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  | 8 |
| Complete two of the following: |  |  |
| ACCT 3403 | Accounting Information Systems |  |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |  |
| ACCT 4412 | Auditing and Other Assurance Services |  |
| ACCT 4414 | Income Tax Determination and <br> Planning |  |

## CONCENTRATION IN BUSINESS/INTERDISCIPLINARY Code Title

Complete four courses in consultation with approved D'Amore-McKim School of Business faculty member.

## CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |  |
| :---: | :---: | :---: |
| ENTR 3308 | Business Economic History of South Africa |  |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of $t$ | following: | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |

## Hours

Hours

| ENTR 3410 | Entrepreneurship and Intrapraneurship <br> in Innovation-Driven Markets |
| :--- | :--- |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through <br> Global Growth, Acquisitions, and <br> Alliances |
| ENTR 4512 | Social Entrepreneurship and <br> Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT

Code Title Hours

| Required Course |  |
| :--- | :--- |
| MGMT 4501 | Skills for Managerial Success |

Electives
Complete three of the following: 12

| MGMT 3302 | Negotiating in Business |
| :--- | :--- |
| MGMT 3330 | Developing Leaders for Global <br> Sustainability |
| MGMT 3340 | Managing Healthcare Organizations: <br> Critical Challenges and New <br> Approaches |
| MGMT 3420 | Managing Human Capital |
| MGMT 3435 | Social Networks and Organizations |
| MGMT 3510 | Managing Global Teams Virtually and <br> Locally |
| MGMT 3530 | Project Management |
| MGMT 4310 | The Management Practices of Great <br> Organizations |
| MGMT 4410 | Human Resources and Workforce <br> Analytics |
| MGMT 4603 | Leadership Seminar |
| ENTR 2215 | Understanding Family Enterprise |

CONCENTRATION IN MANAGEMENT INFORMATION SYSTEMS
Code Title Hours

## Required Courses

| MISM 3403 | Data Management in the Enterprise | 4 |
| :--- | :--- | :--- |
| MISM 4501 | Business Systems Integration | 4 |

## Electives

Note: Only one non-MISM course may be used as an elective.
Complete two of the following:

MISM 3305 Information Resource Management
MISM 3404 Data Communications
MISM 3406 Introduction to Web Design, Practices, and Standards
MISM 3515 Data Mining for Business
MISM 4512 Special Topics in Information Technology Management
ACCT 3403 Accounting Information Systems
MKTG 4508 Digital Marketing
4
4

- 

| SCHM 3301 | Global Supply Chain Strategy |  |
| :---: | :---: | :---: |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |
| CONCENTRATION IN MARKETING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| MKTG 3301 | Marketing Management | 4 |
| MKTG 3401 | Marketing Research | 4 |
| Electives |  |  |
| Complete two of | llowing: | 8 |
| MKTG 2301 | Marketing and Society |  |
| MKTG 3501 | Marketing Analytics |  |
| MKTG 4310 | Retailing |  |
| MKTG 4420 | Sales Management |  |
| MKTG 4502 | Marketing in the Service Sector |  |
| MKTG 4504 | Advertising and Brand Promotion |  |
| MKTG 4506 | Consumer Behavior |  |
| MKTG 4508 | Digital Marketing |  |
| MKTG 4510 | New Product Development |  |
| MKTG 4512 | International Marketing |  |

## CONCENTRATION IN SUPPLY CHAIN MANAGEMENT

| Code <br> Required Courses <br> SCHM 3301 | Title | Hours |
| :--- | :--- | ---: |
| SCHM 3305 | Global Supply Chain Strategy | 4 |
| SCHM 3310 | Sourcing and Procurement <br> Management | 4 |
| Elective | 4 |  |
| Complete one of the following: |  |  |
| SCHM 3308 | Supply Chain Analytics |  |
| SCHM 3320 | Demand Planning and Forecasting | 4 |
| SCHM 3330 | Sustainability and Supply Chain <br> Management | 4 |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |  |

## Mathematics and Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Mathematics Requirements
Code Title Hours

Calculus
A grade of $C$ or higher is required:

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Intermediate and Advanced Math | 4 |  |
| MATH 2341 | Differential Equations and Linear <br>  <br> MATH 2331 | Linebra for Engineering |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 3150 | Real Analysis | 4 |
| MATH 3175 | Group Theory | 4 |
| Co-op Reflections |  | 4 |
| MATH 3000 | Co-op and Experiential Learning <br> Reflection Seminar 1 | 4 |
| or MATH 4000 | Co-op and Experiential Learning Reflection <br> Seminar 2 | 1 |

## Mathematics Elective

Complete one course from the following range: 4

MATH 3101 to MATH 4899

## Physics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Physics 1 |  |  |
| Complete one of the following: | 5 |  |
| PHYS 1161 | Physics 1 |  |
| and PHYS 1162 | and Lab for PHYS 1161 |  |
| PHYS 1151 Physics for Engineering 1 <br> and PHYS 1152 and Lab for PHYS 1151 <br> and PHYS 1153 and Interactive Learning Seminar for |  |  |
|  | PHYS 1151 |  |

## Physics 2

Complete one of the following: 5

| PHYS 1165 | Physics 2 |
| :--- | :--- |
| and PHYS 1166 | and Lab for PHYS 1165 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 | and Lab for PHYS 1155 |
| and PHYS 1157 | and Interactive Learning Seminar for |
|  | PHYS 1155 |

Intermediate Physics

| PHYS 2303 | Modern Physics | 4 |
| :--- | :--- | ---: |
| PHYS 2305 | Thermodynamics and Statistical |  |
|  | Mechanics | 4 |
| PHYS 2371 | Electronics |  |
| and PHYS 2372 | and Lab for PHYS 2371 | 4 |

Advanced Physics
PHYS 3600 Advanced Physics Laboratory 4
PHYS 3602 Electricity and Magnetism 4

Elective Courses
Complete two courses from the following range: 8
PHYS 3000 to PHYS 7999

## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| PHYS 3601 | Classical Dynamics | 4 |
| MATH 4545 | Fourier Series and PDEs | 4 |
| or MATH 4525 | Applied Analysis |  |

Combined-Major Credit Requirement
Complete 83 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PHYS 1165 | 4 |  |  |
| Elective | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 Elective | 4 |  |  |
| PHYS 1162 | 1 Elective | 4 |  | 0 |
| MATH 1000 | 1 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| Elective | 4 MATH 2331 | 4 |  |  |
| PHYS 2303 | 4 PHYS 2305 | 4 |  |  |
| PHYS 2371 | 3 Elective | 4 |  | 0 |
| PHYS 2372 | 1 EESC 2000 | 1 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 3601 | 4 PHYS 3600 | 4 Co-op | 0 |
|  | PHYS 3602 | 4 MATH 3081 | 4 |  |
|  | MATH 3150 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | MATH 3000 | 1 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MATH 3175 | 4 Elective | 4 Co-op | 0 |
|  | MATH <br> elective | 4 Elective | 4 |  |
|  PHYS <br> undergraduate <br> elective 4  <br>  ENGW 3315   | 4 |  |  |  |
| 0 | 16 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 PHYS | 4 |
|  | undergraduate <br> elective |  |


|  | PHYS <br> undergraduatı <br> elective | 4 |
| :--- | ---: | ---: |
| MATH 4025 | 4 |  |
| MATH 4545 | 4 |  |
| 0 | 16 |  |

Total Hours: 133

## Computer Science and Mathematics, BS/MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | Computer Science/Information Science | 1 |
| CS 1200 | Overview 1 |  |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |

A grade of C - or higher is required in Computer Science
Fundamental courses.

| CS 1800 | Discrete Structures |  |
| :--- | :--- | :---: |
| and CS 1801 | and Recitation for CS 1800 (Integrative <br> course) | 4 |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |

and CS 2501 and Lab for CS 2500
CS $2510 \quad$ Fundamentals of Computer Science $2 \quad 5$

| and CS 2511 | and Lab for CS 2510 |
| :--- | :--- |
| CS 2800 | Logic and Computation |

and CS 2801 and Lab for CS 2800 (Integrative course)
Computer Science Required Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 |
| CS 4300 | Computer Graphics (Integrative course) | 4 |
|  | 1 | 4 |

Computer Science Senior Seminar
CS 4000 Senior Seminar

## or THTR 1170 The Eloquent Presenter

Computer Science Elective Courses
With advisor approval directed study courses, project study courses, and appropriate graduate courses may also be taken.
Complete two upper division computer science courses in the 8
following ranges:

CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900
${ }^{1}$ CS 4300 satisfies the Capstone Requirement.

## Mathematics Courses

| Code <br> Calculus Courses | Title | Hours |
| :--- | :--- | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering <br> (a grade of C- or higher is required) | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |


| Mathematics Courses |  |  |
| :--- | :--- | :--- |
| MATH 2331 | Linear Algebra (Integrative course) | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
|  | Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| MATH 3175 | Group Theory | 4 |

Mathematics Electives
Complete three courses in the following range:
MATH 3001 to MATH 4999 but not MATH4000

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Graduate Course Work To Be Taken As An Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Master's-Level Required Courses |  |  |
| CS 5400 | Principles of Programming Language | 4 |
| CS 5600 | Computer Systems | 4 |
| CS 5800 | Algorithms | 4 |

Master's-Level Computer Science Elective Course
Complete one course in the following range:
CS 5000 to CS 7999 but not CS 5010

## Entrance Requirements

- Evaluation for entrance may be requested after a minimum of 3 semesters of CCIS coursework.
- The GPA in CCIS courses must be at least 3.25 .
- The overall GPA must be at least 3.25 .
- Requests for entrance to the BS/MS can be via email to advising@ccs.neu.edu. If requesting via email, include your name, ID, and which BS/MS program you wish to enter.


## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |  |

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  | 4 |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines | 4 |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions <br> or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

| Code | Title |
| :--- | ---: | Hours

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirements

133 total semester hours required for the bachelor's degree

## Mathematics, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics Major Grade Requirement

A grade of $C$ or higher is required in all mathematics courses numbered 3000 and below and in Co-op and Experiential Learning Reflection Seminar 2 (MATH 4000).

## Mathematics Major Requirements

Problem Solving
$\left.\begin{array}{llr|}\hline \text { MATH 1365 } & \begin{array}{l}\text { Introduction to Mathematical } \\ \text { Reasoning }\end{array} & 4 \\ \hline \text { Calculus } & & 4 \\ \hline \text { A grade of C or higher is required: } & \\ \hline \text { MATH 1341 } & \text { Calculus 1 for Science and Engineering } & 4 \\ \text { MATH 1342 } & \text { Calculus 2 for Science and Engineering }\end{array}\right)$

## Mathematics Electives

Complete four courses in the following range:
MATH 3101 to MATH 4899

## Required Physics

Physics 1
Complete one of the following: 5

| PHYS 1161 |  |
| :--- | :--- |
| and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |
| PHYS 1151 | Physics for Engineering 1 <br> and PHYS 1152 <br> and Lab for PHYS 1151 |
| and PHS 1153 | and Interactive Learning Seminar for <br> PHYS 1151 |
| Physics 2 |  |
| Complete one of the following: |  |

PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165
PHYS $1155 \quad$ Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155

| MATH 4025 | Applied Mathematics Capstone | 4 |
| :--- | :--- | :--- |
| MATH 5131 | Introduction to Mathematical Methods <br> and Modeling | 4 |
| MATH 4020 | Research Capstone | 4 |

## Mathematics Major Credit Requirement

Complete 66 semester hours in the major.

## Upper-Division Electives

Note: Courses used as upper-division electives do not count toward the major or NUpath.

Complete three general electives numbered 3000 or above.

## Graduate Courses taken as an Undergraduate Student

Students in the BS/MS program typically take two required courses and two electives toward the graduate Mathematics degree while an undergraduate student. These courses may be allowed to fulfill undergraduate requirements.
Complete four of the following
Required Courses

| MATH 5101 | Analysis 1: Functions of One Variable |
| :---: | :--- |
| MATH 5102 | Analysis 2: Functions of Several <br> Variables |
| MATH 5111 | Algebra 1 |
| MATH 5112 | Algebra 2 |
| Mraduate Electives | Introduction to Mathematical Methods <br> and Modeling (may double count as the <br> undergraduate capstone) |

## MATH 5000 to MATH 7999

## Program Requirement

128 total semester hours required
3.000 GPA is required in all graduate courses

## Mathematics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| Biology majors may | substitute the following two courses: |  |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for <br>  |  |

## Intermediate-Level Courses

Complete two of the following:

| MATH 2321 | Calculus 3 for Science and Engineering |
| :--- | :--- |
| MATH 2341 | Differential Equations and Linear |
|  | Algebra for Engineering |
| MATH 2331 | Linear Algebra |

## Capstone

## Mathematics Electives

Complete two courses in the following range: 8 MATH 3001 to MATH $4699{ }^{1}$
${ }^{1}$ Co-op and Experiential Learning Reflection Seminar 2 (MATH 4000) is excluded.

## GPA Requirement

2.000 GPA required in the minor

## Physics

Website (http://www.northeastern.edu/cos/physics)
Paul M. Champion, PhD
Professor and Chair
110 Dana Research Center
617.373 .2902
617.373.2943 (fax)
physics@northeastern.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.

## Programs

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
- 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 high-technology laboratories as scientists or engineers.

## BS IN PHYSICS

The physics program provides a strong foundation in classical and modern physics, including studies of the various physical phenomena including electromagnetism, dynamics, building blocks of matter, energy, and radiation.

## BS IN BIOMEDICAL PHYSICS

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; and physical principles of medical devices. The biomedical physics program also offers a premed (prehealth) specialized track.

## BS IN APPLIED PHYSICS

The applied physics BS degree is a flexible, interdisciplinary-oriented program designed to provide students with a solid background in basic physics, in conjunction with the opportunity to sample courses from a wide range of disciplines, including engineering, biology, chemistry, math, environmental studies, and computer science. This program seeks to enable students to prepare for a variety of careers in, for example, nanotechnology, a medical field, environmental research, or even finance.

## BS/MS IN APPLIED PHYSICS AND ENGINEERING

Offered jointly by the Department of Physics and the Department of Electrical and Computer Engineering (ECE), the program provides 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.

## BS/PHD IN PHYSICS

The physics BS/PhD program allows Northeastern undergraduate physics majors to continue on to a PhD in physics. The program uses undergraduate course sharing to enter the research phase of the PhD program approximately one year early relative to the traditional entering PhD students. Undergraduate students who have completed a research co-op in the department may also choose to continue that research, allowing them to effectively start their PhD research while undergraduates.

## COMBINED MAJORS

Students also have the opportunity to combine physics with another discipline through a combined major. Current combined majors with physics include chemical engineering, computer engineering, electrical engineering, mechanical engineering, computer science, environmental geology, geology, mathematics, and philosophy.

## RESEARCH OPPORTUNITIES FOR UNDERGRADUATES

Students are encouraged to participate in the excitement of cutting-edge research in particle physics, biophysics, and nanotechnology with worldrenowned faculty.

## Academic Progression Standards

Students may not continue as physics majors beyond the end of the sophomore year unless the following courses or equivalent courses are successfully completed:

| PHYS 1161 | Physics 1 |  |
| :--- | :--- | ---: |
| and PHYS 1162 | and Lab for PHYS 1161 | 5 |
| PHYS 1165 | Physics 2 |  |
| and PHYS 1166 | and Lab for PHYS 1165 | 5 |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical <br>  <br>  <br> Mechanics | 4 |
| PHYS 2371 | Electronics | 3 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |

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 1
and PHYS 1152
and PHYS 1153

PHYS 1155
and PHYS 1156
and PHYS 1157

Physics for Engineering
and Lab for PHYS 1151
and Interactive Learning Seminar for PHYS 1151
Physics for Engineering 2
and Lab for PHYS 1155
and Interactive Learning Seminar for PHYS 1155

A minimum grade-point average 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 $D+$ or lower may be counted toward the graduation requirements.

## Programs

## Bachelor of Science (BS)

- Physics (p. 530)
- Applied Physics (p. 534)
- Biomedical Physics (p. 539)
- Computer Science and Physics (p. 544)
- Mathematics and Physics (p. 547)
- Physics and Music with Concentration in Music Composition and Technology (p. 548)
- Physics and Philosophy (p. 549)


## Bachelor of Science in Chemical Engineering (BSCHE)

- Chemical Engineering and Physics (p. 550)


## Bachelor of Science in Computer Engineering (BSCompE)

- Computer Engineering and Physics (p. 552)


## Bachelor of Science in Electrical Engineering (BSEE)

- Electrical Engineering and Physics (p. 554)

Bachelor of Science in Mechanical Engineering (BSME)

- Mechanical Engineering and Physics (p. 556)


## Dual Degrees

- Physics, BS/MS (p. 558)
- Applied Physics/Engineering, BS/MS (p. 559)
- Physics, BS/PhD (p. 560)


## Minor

- Physics (p. 560)


## Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

5 NUpath Requirements
All undergraduate students are required to complete the NUpath Requirements (p. 34).

5 Breadth Courses for Physics

| Mathematics |  |  |
| :---: | :---: | :---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| Computational Methods |  |  |
| GE 1111 | Engineering Problem Solving and Computation | 4 |
| or PHYS 1130 | Computing, Data, and Science |  |
| Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| Technical Electives |  |  |
| Complete 8 semester hours from the following: |  | 8 |
| MATH 2280 | Statistics and Software |  |
| MATH 2285 | Introduction to Multisample Statistics |  |
| MATH 2321 to MATH 5999 |  |  |
| PHYS 2303 to PHYS 7999 |  |  |
| CHEM 2311 to CHEM 5999 |  |  |
| BIOL 2301 to BIOL 5999 |  |  |
| ENVR 2300 to ENVR 5999 |  |  |
| CS 2990 to CS 4900 |  |  |
| CHME 2001 to CHME 4699 |  |  |
| CIVE 2001 to CIVE 4699 |  |  |
| EECE 2001 to EECE 5999 |  |  |
| ME 2001 to ME 4699 |  |  |
| IE 2001 to IE 46 |  |  |

## Physics Major Requirements

Introductory Physics
Physics 1
Complete one of the following: 5
PHYS $1161 \quad$ Physics 1
and PHYS 1162 and Lab for PHYS 1161
PHYS $1151 \quad$ Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

## Physics 2

Complete one of the following: 5
PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165
PHYS 1155 Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155
Intermediate Physics
PHYS 2303 Modern Physics
4

| PHYS 2305 | Thermodynamics and Statistical <br> Mechanics | 4 |
| :--- | :--- | :---: |
| PHYS 2371 | Electronics |  |
| and PHYS 2372 | and Lab for PHYS 2371 | 4 |
| Advanced Physics |  | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3601 | Classical Dynamics | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |

MATH $4606 \quad$ Mathematical and Computational
Methods for Physics

PHYS 3500 to PHYS 7999

## Experiential Learning

Complete one course in experiential learning. See department for approved courses. Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information.

## Senior Capstone

PHYS 5318
Principles of Experimental Physics
4

## Physics Major Credit Requirement

Complete 91 semester hours in the major.

## Program Requirement

133 total semester hours required

## Plan of Study

## Note on Physics Plans of Study

Some required physics courses are offered in both fall and spring semesters, while other required courses are offered less frequently. Therefore, the suggested plan of study will vary from student to student, depending on the year of entry for that student. Thus, for example, a student who first enrolled in the fall of an even-numbered year should consult the plans of study listed below under Even-Numbered Year One. Those who enter in the fall of an odd-numbered year should consult the plans of study listed below under Odd-Numbered Year One.

## Even-Numbered Year One

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| PHYS 1000 | 1 GE 1111 | 4 Vacation | Vacation |  |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  | 0 |
| PHYS 1163 | 0 Elective | 4 |  |  |
| Elective | 4 |  | 0 |  |

Year 2
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { PHYS 2303 } & 4 \text { PHYS 2305 }^{2} & 4 & \text { Vacation } & \text { Co-op }\end{array}\right]$

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | PHYS $3601^{5}$ | 4 PHYS $3600^{4}$ | 4 Co-op |  |
|  | PHYS $3602^{6}$ | 4 PHYS 3603 | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |
| 0 | 16 | 8 | 0 |  |

Year 4

| Fall Co-op | Hours Spring $\text { PHYS } 5115^{8}$ | Hours Summer 1 <br> 4 MATH 3081 | Hours Summer 2 <br> 4 Co-op | Hours |
| :---: | :---: | :---: | :---: | :---: |
|  | ENGW 3307 | 4 Elective | 4 |  |
|  | Technical elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :--- | ---: |
| Co-op | PHYS $5318^{9}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
|  | Technical <br> elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 133

## FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 GE 1111 | 4 MATH 2321 | 4 MATH 2331 | 4 |
| ENGW 1111 | 4 MATH 1342 | 4 Elective | 4 Elective | 4 |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 Elective | 4 |  | 8 |
| Elective | 4 |  | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | :---: |
| ${\text { PHYS } 2303^{1}}^{2}$ | $4{\text { PHYS } 2305^{2}}^{2}$ | 4 PHYS 3600 |  |  |


| PHYS 2372 | Technical <br> elective | 4 |  |
| :--- | :--- | :---: | :--- |
| MATH 2341 | 4 Elective | 4 |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |
| CHEM 1212 | 1 |  | 8 |
| CHEM 1213 | 0 | 17 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | PHYS $3602^{6}$ | 4 PHYS 3603 | 4 Co-op |  |
|  | PHYS 5115 | 4 MATH 3081 | 4 |  |
|  | ENGW 3307 | 4 |  | 0 |
|  | Elective | 4 | 8 | 4 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | PHYS 5318 $8^{9}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
|  | Technical <br> elective <br> Elective | 4 |
| 0 | 16 |  |

Total Hours: 133
FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 GE 1111 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  | 0 |
| PHYS 1163 | 0 Elective | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | 0 Co-op | 0 PHYS 2305 | 4 |
| PHYS 2371 $^{3}$ | 3 |  | PHYS 3600 | 4 |
| PHYS 2372 | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  | 8 |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |
| EESC 2000 | 1 | 0 | 0 |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 3601 ${ }^{5}$ | 4 Co-op | 0 Co-op | 0 MATH 3081 | 4 |
| MATH 2331 | 4 |  | Elective | 4 |
| MATH 2341 | 4 |  |  |  |



Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS $3602^{6}$ | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS 5115 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| PHYS 3603 $^{7}$ | 4 PHYS 5318 ${ }^{9}$ | 4 |
| ENGW 3315 | 4 PHYS <br> advanced <br> elective | 4 |
| Technical <br> elective | 4 Technical |  |
| elective |  |  |
| Elective | 4 Elective | 4 |
|  | 16 | 4 |

Total Hours: 133
FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2331 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 MATH 2341 | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 CHEM 1211 | 4 |  |  |
| Elective | 4 CHEM 1212 | 1 |  | 8 |
|  | CHEM 1213 | 0 | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | Co-op | PHYS 2305 | 4 |
| PHYS $2371^{3}$ | 3 |  | Elective | 4 |
| ${\text { PHYS } 2372^{3}}^{2}$ | 1 |  |  |  |
| PHYS $3602^{6}$ | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EESC 2000 | 1 | 0 | 0 |  |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS $3601^{5}$ | 4 Co-op | Co-op | PHYS 3600 | 4 |
| PHYS $3603^{7}$ | 4 |  | MATH 3081 | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| PHYS 5115 | 4 PHYS $5318^{9}$ | 4 |


| ENGW 3307 | 4 PHYS <br> advanced <br> elective | 4 |
| :--- | :---: | :---: |
| Technical <br> elective | 4 Technical <br> elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 133

## Odd-Numbered Year One

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 GE 1111 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 Elective | 4 |  | 0 |
| Elective | 4 |  | 0 |  |


Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS $3601^{5}$ | 4 PHYS 3600 | 4 Co-op | 0 |
|  | PHYS $3602^{6}$ | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS $5115^{8}$ | 4 PHYS $3603^{7}$ | 4 Co-op | 0 |
|  | ENGW 3315 | 4 MATH 3081 | 4 |  |
|  | Technical <br> elective <br> Elective | 4 |  |  |
| 0 | 4 | 8 | 0 |  |


| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| Co-op | 0 PHYS $5318^{9}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
|  | Technical <br> elective | 4 |


| Elective | 4 |
| ---: | ---: |
| 0 | 16 |

Total Hours: 133
FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 GE 1111 | 4 MATH 2321 | 4 MATH 2331 | 4 |
| ENGW 1111 | 4 MATH 1342 | 4 Elective | 4 Elective | 4 |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 Elective | 4 |  | 8 |
| Elective | 4 |  | 8 |  |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS $2303{ }^{1}$ | 4 PHYS $2305{ }^{2}$ | 4 PHYS $3600{ }^{4}$ | 4 Co-op |  |
| PHYS $2371{ }^{3}$ | 3 PHYS $3602{ }^{6}$ | 4 PHYS $3603{ }^{7}$ | 4 |  |
| PHYS $2372{ }^{3}$ | 1 Elective | 4 |  |  |
| MATH 2341 | 4 Elective | 4 |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |
|  | 17 | 17 | 8 | 0 |

Year 3

| Fall <br> Co-op | Hours Spring $\text { PHYS } 3601^{5}$ | Hours Summer 1 <br> 4 MATH 3081 | Hours Summer 2 <br> 4 Co-op | Hours |
| :---: | :---: | :---: | :---: | :---: |
|  | PHYS $5115^{8}$ | 4 Elective | 4 |  |
|  | ENGW 3307 | 4 |  |  |
|  | Technical elective | 4 |  |  |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | PHYS $5318^{9}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
|  | Technical <br> elective <br> Elective | 4 |
| 0 | 16 |  |

Total Hours: 133

## FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| PHYS 1000 | 1 GE 1111 | 4 Vacation | Vacation |  |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |


| PHYS 1163 | 0 Elective | 4 |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Elective | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS $2303{ }^{1}$ | 4 Co-op | Co-op | PHYS $2305{ }^{2}$ | 4 |
| PHYS $2371{ }^{3}$ | 3 |  | PHYS $3600{ }^{4}$ | 4 |
| PHYS $2372{ }^{3}$ | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |
| EESC 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 3601 ${ }^{5}$ | 4 Co-op | Co-op | MATH 3081 | 4 |
| MATH 2331 | 4 |  | Elective | 4 |
| MATH 2341 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| PHYS $3602^{6}$ | 4 Co-op | Co-op | Vacation |  |
| PHYS $5115^{8}$ | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| PHYS $3603^{7}$ | 4 PHYS $5318^{9}$ | 4 |
| ENGW 3307 | 4 PHYS <br> advanced <br> elective | 4 |
| Technical <br> elective | 4 Technical <br> elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 133

## FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2331 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 MATH 2341 | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 CHEM 1211 | 4 |  |  |
| Elective | 4 CHEM 1212 | 1 |  | 8 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | Co-op | PHYS 3600 | 4 |
| ${\text { PHYS } 2371^{3}}^{4}$ | 3 |  | Elective | 4 |
| PHYS 2372 $^{3}$ | 1 |  |  |  |
| PHYS 3602 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EESC 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 5115 | 4 Co-op | Co-op | PHYS 2305 | 4 |
| ENGW 3307 | 4 |  | MATH 3081 | 4 |
| Technical <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ${\text { PHYS } 3601^{5}}^{4}$4 PHYS $5318^{9}$ | 4 |  |
| PHYS $3603^{7}$ | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 Technical |  |
| elective |  |  |$\quad 4$.

## Total Hours: 133

PHYS 2303 offered every fall and spring
${ }^{2}$ PHYS 2305 offered every spring and summer 2 (even years)
${ }^{3}$ PHYS 2371/2372 offered every fall
4 PHYS 3600 offered every summer 1 and summer 2
${ }^{5}$ PHYS 3601 offered spring (even years) and fall (odd years)
${ }^{6}$ PHYS 3602 offered every fall and spring
${ }^{7}$ PHYS 3603 offered fall (even years) and summer 1 (odd years)
${ }^{8}$ PHYS 5115 offered every fall and spring
${ }^{9}$ PHYS 5318 offered every spring

## Applied Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses

| Mathematics |  |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering |$\quad 4$

Applied Physics Major Requirements
Introductory Physics
Physics 1
Complete one of the following:5
PHYS 1161 Physics 1
and PHYS 1162 and Lab for PHYS 1161
PHYS 1151 Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for
PHYS 1151

## Physics 2

Complete one of the following: 5
PHYS $1165 \quad$ Physics 2
and PHYS 1166 and Lab for PHYS 1165
PHYS 1155 Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155

| Intermediate Physics |  |  |
| :--- | :--- | ---: |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical | 4 |
|  | Mechanics | 4 |
| PHYS 2371 | Electronics | 4 |
| and PHYS 2372 | and Lab for PHYS 2371 |  |


| Advanced Physics |  |  |
| :---: | :---: | :---: |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |
| Advanced Physics Electives |  |  |
| Complete three of the following: |  | 12 |
| PHYS 3601 | Classical Dynamics |  |
| PHYS 5111 | Astrophysics and Cosmology |  |
| PHYS 5113 | Introduction to Particle and Nuclear Physics |  |
| PHYS 5114 | Physics of Advanced Materials |  |
| PHYS 5115 | Quantum Mechanics |  |
| PHYS 5116 | Complex Networks and Applications |  |
| PHYS 4621 | Biological Physics 1 |  |
| PHYS 4623 | Medical Physics |  |
| PHYS 4651 | Medical Physics Seminar 1 |  |
| PHYS 4652 | Medical Physics Seminar 2 |  |
| PHYS 5260 | Introduction to Nanoscience and Nanotechnology |  |
| MATH 4606 | Mathematical and Computational Methods for Physics |  |
| or PHYS 4606 | Mathematical and Computational Methods for Physics |  |

## Experiential Learning

Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/ or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information.
PHYS 4996 Experiential Education Directed Study 4
Senior Capstone
PHYS $5318 \quad$ Principles of Experimental Physics

## Applied Physics Major Credit Requirement

Complete 91 semester hours in the major.

## Program Requirement

133 total semester hours required

## Plan of Study

## Note on Applied Physics Plans of Study

Some required physics courses are offered in both fall and spring semesters, while other required courses are offered less frequently. Therefore, the suggested plan of study will vary from student to student, depending on the year of entry for that student. Thus, for example, a student who first enrolled in the fall of an even-numbered year should consult the plans of study listed below under Even-Numbered Year One. Those who enter in the fall of an odd-numbered year should consult the plans of study listed below under Odd-Numbered Year One.

## Even-Numbered Year One

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |


| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| ENGW 1111 | 4 GE 1111 | 4 |  |  |
| MATH 1341 | 4 Elective | 4 |  |  |
| Elective | 4 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 PHYS 2305 $^{2}$ | 4 Vacation | 0 Co-op | 0 |
| PHYS 2371 $^{3}$ | 3 MATH 2331 | 4 |  |  |
| PHYS 2372 $^{3}$ | 1 MATH 2341 | 4 |  |  |
| MATH 2321 | 4 Elective | 4 |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |
| CHEM 1212 | 1 |  |  | 0 |

Year 3
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Co-op } & \begin{array}{l}\text { PHYS 3602 }\end{array} & 4{\text { PHYS } 3600^{4}}^{\text {Technical }} \begin{array}{l}\text { elective }\end{array} & 4 \text { PHYS } 3603^{6} & 4\end{array}\right] 0$

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 PHYS $5318^{7}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
| Technical <br> elective <br> Elective | 4 |  |
| 0 | 16 |  |

Total Hours: 133
FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |


| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Elective | 4 |  | 8 | 8 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS $2303{ }^{1}$ | 4 PHYS $2305{ }^{2}$ | $4 \text { PHYS } 3600^{4}$ | 4 Co-op |  |
| PHYS $2371{ }^{3}$ | 3 PHYS $3602{ }^{5}$ | 4 PHYS $3603{ }^{6}$ | 4 |  |
| PHYS $2372{ }^{3}$ | 1 Elective | 4 |  |  |
| MATH 2331 | 4 Elective | 4 |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |
|  | 17 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | ENGW 3307 | 4 Technical elective | 4 Co-op |  |
|  | PHYS <br> advanced elective | 4 Elective | 4 |  |
|  | PHYS <br> advanced elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | PHYS $5318{ }^{7}$ | 4 |  |  |
|  | PHYS <br> advanced elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | 0 | 16 |  |  |

Total Hours: 133

## FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1

Year 1
$\left.\begin{array}{lcccr|}\hline \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { PHYS 1000 } & 1 \text { PHYS 1165 } & 4 & \text { Vacation } & 0 \text { Vacation }\end{array}\right) 0$

| Year 2 |  |  |  |  |
| :--- | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS 2303 | 4 Co-op | 0 Co-op | 0 PHYS 2305 ${ }^{2}$ | 4 |
| PHYS 2371 | 3 |  | MATH 2341 | 4 |
| PHYS 2372 | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  | 8 |
| CHEM 1212 | 1 |  | 0 |  |
| CHEM 1213 | 0 |  |  |  |
| EESC 2000 | 1 | 0 |  |  |
|  | 18 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS $3602{ }^{5}$ | 4 Co-op | 0 Co-op | 0 PHYS $3600{ }^{4}$ | 4 |
| MATH 2331 | 4 |  | Elective | 4 |
| Technical elective | 4 |  |  |  |
| Technical elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 3307 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Technical elective | 4 |  |  |  |
| Technical elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| PHYS $3603^{6}$ | 4 PHYS $5318^{7}$ | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| 16 | 16 |  |

Total Hours: 133

## FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |


| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 18 | 17 | 8 | 8 |

$\begin{array}{lll}\text { Year } 2 & & \\ \text { Fall Hours Spring } \quad \text { Hours Summer } 1 \text { Hours Summer } 2 \text { Hours }\end{array}$

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | Co-op | PHYS 36004 | 4 |
| PHYS 2371 | 3 |  | Elective | 4 |
| PHYS 2372 $^{3}$ | 1 |  |  |  |
| MATH 2331 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  | 8 |
| CHEM 1213 | 0 |  | 0 |  |
| EESC 2000 | 1 | 0 |  |  |
|  | 18 |  |  |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS $3602^{5}$ | 4 Co-op | Co-op | PHYS 2305 | 4 |
| ${\text { PHYS } 3603^{6}}^{2}$ | 4 |  | Technical <br> elective | 4 |


| ENGW 3307 | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Technical <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Technical <br> elective | 4 PHYS $5318^{7}$ | 4 |
| Technical <br> Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| 16 | 16 |  |

Total Hours: 133
Odd-Numbered Year One
FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| ENGW 1111 | 4 GE 1111 | 4 |  |  |
| MATH 1341 | 4 Elective | 4 |  | 0 |
| Elective | 4 |  | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ${\text { PHYS } 2303^{1}}^{2}$ | 4 PHYS 2305 | 4 Vacation | 0 Co-op | 0 |
| PHYS $2371^{3}$ | 3 MATH 2331 | 4 |  |  |


| PHYS 2372 $^{3}$ | 1 MATH 2341 | 4 |  |
| :--- | :--- | :--- | :--- |
| MATH 2321 | 4 Elective | 4 |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |
| CHEM 1212 | 1 |  |  |
| CHEM 1213 | 0 |  | 0 |
|  | 17 | 17 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | PHYS $3602^{5}$ | 4 PHYS $3600^{4}$ | 4 Co-op | 0 |
|  | Technical <br> elective | 4 Elective | 4 |  |
| Technical <br> elective | 4 |  |  |  |
|  | Elective | 4 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3307 | 4 PHYS $3603^{6}$ | 4 Co-op | 0 |
| PHYS <br> advanced <br> elective | 4 Elective | 4 |  |  |
| PHYS <br> advanced <br> elective | 4 |  |  |  |
| Technical <br> elective | 4 | 8 | 0 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 PHYS $5318^{7}$ | 4 |
|  | PHYS <br> advanced <br> elective | 4 |
| Technical <br> elective | 4 |  |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 133

FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 8 |
| Elective | 4 |  | 8 |  |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| PHYS 2303 | $4{\text { PHYS } 2305^{2}}^{1}$ | 4 PHYS $3600^{4}$ | 4 Co-op |  |
| PHYS 2371 | 3 PHYS $3602^{5}$ | 4 PHYS $3603^{6}$ | 4 |  |


| PHYS $2372^{3}$ | 1 Elective | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MATH 2331 | 4 Elective | 4 |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |
| CHEM 1212 | 1 |  | 8 | 0 |
| CHEM 1213 | 0 | 17 | 8 |  |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | ENGW 3307 | 4 Technical elective | 4 Co-op |  |
|  | PHYS <br> advanced elective | 4 Elective | 4 |  |
|  | PHYS <br> advanced elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | PHYS $5318{ }^{7}$ | 4 |  |  |
|  | PHYS <br> advanced elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | Technical elective | 4 |  |  |
|  | 0 | 16 |  |  |

Total Hours: 133
FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |


| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 18 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | 0 Co-op | 0 PHYS 3600 | 4 |
| PHYS 2371 $^{3}$ | 3 |  | MATH 2341 | 4 |
| PHYS 2372 $^{3}$ | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  | 8 |
| CHEM 1213 | 0 |  | 0 |  |
| EESC 2000 | 1 |  |  |  |
|  | 18 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 3602 | 4 Co-op | 0 Co-op | 0 PHYS 2305 |  |$\quad 4$


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS $3603^{6}$ | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3307 | 4 |  |  |  |
| Technical <br> elective | 4 |  |  |  |
| Elective | 4 |  | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Technical <br> elective | 4 PHYS $5318^{7}$ | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| 4 PHYS <br> advanced  <br> elective  | 4 |  |
| 16 | 16 |  |

Total Hours: 133

## FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 8 |
| Elective | 4 |  | 8 |  |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | Co-op | PHYS 3600 | 4 |
| PHYS $2371^{3}$ | 3 |  | Elective | 4 |
| PHYS 2372 | 1 |  |  |  |
| MATH 2331 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS $3602^{5}$ | 4 Co-op | Co-op | PHYS $2305^{2}$ | 4 |
| ENGW 3307 | 4 |  | Technical <br> elective | 4 |
|  |  |  |  |  |

Technical 4
elective

| Elective | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| PHYS $3603^{6}$ | 4 PHYS $5318^{7}$ | 4 |
| Technical <br> elective | 4 PHYS <br> advanced <br> elective | 4 |
| Technical <br> elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| 16 | 16 |  |

Total Hours: 133
${ }^{1}$ PHYS 2303 offered every fall and spring
2 PHYS 2305 offered every spring and summer 2 (even years)
${ }^{3}$ PHYS 2371/2372 offered every fall
4 PHYS 3600 offered every summer 1 and summer 2
5 PHYS 3602 offered every fall and spring
${ }^{6}$ PHYS 3603 offered fall (even years) and summer 1 (odd years)
7 PHYS 5318 offered every spring

## Biomedical Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses for Biomedical Physics Major

Mathematics

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |



| PHYS 3602 | Electricity and Magnetism | 4 |
| :---: | :---: | :---: |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |
| Biomedical Physics |  |  |
| PHYS 4621 | Biological Physics 1 | 4 |
| PHYS 4623 | Medical Physics | 4 |
| PHYS 4651 | Medical Physics Seminar 1 | 4 |
| PHYS 4652 | Medical Physics Seminar 2 | 4 |
| Advanced Physics Elective |  |  |
| Complete one of the following: |  | 4 |
| MATH 4606 | Mathematical and Computational Methods for Physics |  |
| PHYS 2300 to PHYS 7999 |  |  |
| Experiential Learning |  |  |
| Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/ or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information. |  |  |
| PHYS 4996 | Experiential Education Directed Study | 4 |
| Senior Capstone |  |  |
| PHYS 5318 | Principles of Experimental Physics | 4 |

## Biomedical Physics Major Credit Requirement

Complete 97 semester hours in the major.

## Program Requirement

135 total semester hours required

## Plan of Study

## Additional Recommended Courses for Premedical School Track

In addition to the required courses for the BS in Biomedical Physics, students who are pursuing the premed/health track are encouraged to enroll in the following courses, utilizing available elective slots:

CHEM 1214 General Chemistry 2
and CHEM 1215 and Lab for CHEM 1214
and CHEM 1216 and Recitation for CHEM 1214
CHEM $2311 \quad$ Organic Chemistry 1
and CHEM 2312 and Lab for CHEM 2311
and CHEM 2319 and Recitation for CHEM 2311
CHEM 2313
and CHEM 2314
and CHEM 2320
Organic Chemistry 2

BIOL 2301 Genetics and Molecular Biology 5
and BIOL 2302 and Lab for BIOL 2301
BIOL 2323 and
and 5
and BIOL 2324
MATH $2280 \quad$ Statistics and Software 4

## Note on Biomedical Physics Plans of Study

Some required physics courses are offered in both fall and spring semesters, while other required courses are offered less frequently. Therefore, the suggested plan of study will vary from student to student, depending on the year of entry for that student. Thus, for example, a student who first enrolled in the fall of an even-numbered year should consult the plans of study listed below under Even-Numbered Year One.

Those who enter in the fall of an odd-numbered year should consult the plans of study listed below under Odd-Numbered Year One.

## Even-Numbered Year One

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| MATH 1341 | 4 PHYS 1166 | 1 |  |  |
| BIOL 1111 | 4 PHYS 1167 | 0 |  |  |
| BIOL 1112 | 1 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| PHYS 1161 | 4 Elective | 4 |  |  |
| PHYS 1162 | 1 |  |  | 0 |
| PHYS 1163 | 0 | 17 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 PHYS 2305 $^{2}$ | 4 Vacation | 0 Co-op | 0 |
| PHYS 2371 | 3 MATH 2341 | 4 |  |  |
| PHYS 2372 $^{3}$ | 1 BIOL 1113 | 4 |  |  |
| MATH 2321 | 4 BIOL 1114 | 1 |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |
| CHEM 1212 | 1 Elective | 4 |  | 0 |
| CHEM 1213 | 0 |  | 0 |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS $3602{ }^{6}$ | 4 PHYS $3600{ }^{4}$ | 4 Co-op | 0 |
|  | PHYS $4621{ }^{10}$ | 4 PHYS $3603{ }^{7}$ | 4 |  |
|  | Technical elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |



| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| Co-op | 0 PHYS 4651 | 4 |
|  | PHYS 4652 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

[^13]FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 BIOL 1113 | 4 |  |  |
| BIOL 1111 | 4 BIOL 1114 | 1 |  | 8 |
| BIOL 1112 | 1 |  | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| PHYS 2303 $^{1}$ | 4 PHYS 2305 $^{2}$ | 4 PHYS $3600^{4}$ | 4 Co-op |  |
| PHYS 2371 | 3 PHYS $3602^{6}$ | 4 PHYS 4623 ${ }^{11}$ | 4 |  |
| PHYS 2372 | 1 Elective | 4 |  |  |
| CHEM 1211 | 4 Elective | 4 |  |  |
| CHEM 1212 | 1 EESC 2000 | 1 |  |  |
| Elective | 4 |  | 8 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | PHYS $4621{ }^{10}$ | 4 PHYS $3603{ }^{7}$ | 4 Co-op |  |
|  | PHYS $4651{ }^{12}$ | 4 Technical Elective | 4 |  |
|  | ENGW 3307 | 4 |  |  |
|  | PHYS <br> advanced elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | PHYS $4652^{13}$ | 4 |
|  | PHYS $5318^{9}$ | 4 |
|  | Technical <br> elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 135
FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PHYS 1166 | 1 |  |  |
| MATH 1341 | 4 PHYS 1167 | 0 |  |  |
| PHYS 1161 | 4 MATH 1342 | 4 |  |  |
| PHYS 1162 | 1 GE 1111 | 4 |  |  |
| PHYS 1163 | 0 BIOL 1113 | 4 |  | 0 |
| BIOL 1111 | 4 BIOL 1114 | 1 |  |  |
| BIOL 1112 | 1 | 18 | 0 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PHYS $2303{ }^{1}$ | 4 Co-op | 0 Co-op | 0 PHYS $2305^{2}$ | 4 |
| PHYS $2371{ }^{3}$ | 3 |  | MATH 2341 | 4 |
| PHYS $2372{ }^{3}$ | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  |  |
| CHEM 1213 | 0 |  |  |  |
| EESC 2000 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 46210 | 4 Co-op | 0 Co-op | 0 PHYS 3600 | 4 |
| PHYS 4623 | 4 |  | Elective | 4 |
| Technical <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS $3602^{6}$ | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS $4651^{12}$ | 4 |  |  |  |
| Technical <br> elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 | 0 |


| PHYS $2371{ }^{3}$ | 3 | PHYS $2305{ }^{2}$ | 4 |
| :---: | :---: | :---: | :---: |
| PHYS $2372{ }^{3}$ | 1 |  |  |
| PHYS $3602{ }^{6}$ | 4 |  |  |
| CHEM 1211 | 4 |  |  |
| CHEM 1212 | 1 |  |  |
| CHEM 1213 | 0 |  |  |
| EESC 2000 | 1 |  |  |
|  | 18 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS $3603^{7}$ | 4 Co-op | Co-op | Technical <br> elective | 4 |
| PHYS $4621^{10}$ | 4 |  | Elective | 4 |
| PHYS $4623^{11}$ | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |

Year 4


Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| PHYS $3603{ }^{7}$ | 4 PHYS $4652^{13}$ | 4 |
| ENGW 3307 | 4 PHYS $5318{ }^{9}$ | 4 |
| Elective | 4 PHYS <br> advanced elective | 4 |
| Elective | 4 Elective | 4 |
| 16 |  | 16 |

Total Hours: 135

## FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 BIOL 1113 | 4 |  |  |
| BIOL 1111 | 4 BIOL 1114 | 1 |  | 8 |
| BIOL 1112 | 1 |  | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| PHYS $2303^{1}$ | 4 Co-op | Co-op | PHYS $3600^{4}$ | 4 |

Total Hours: 135

## Odd-Numbered Year One

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 Vacation | 0 Vacation | 0 |
| MATH 1341 | 4 PHYS 1166 | 1 |  |  |
| BIOL 1111 | 4 PHYS 1167 | 0 |  |  |
| BIOL 1112 | 1 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 MATH 1342 | 4 |  |  |
| PHYS 1161 | 4 Elective | 4 |  | 0 |
| PHYS 1162 | 1 |  |  |  |
| PHYS 1163 | 0 | 17 | 0 |  |
|  | 19 |  |  |  |


| Year 2 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |  |
| PHYS 2303 | 4 PHYS 2305 $^{2}$ | 4 Vacation | 0 Co-op | 0 |  |
| PHYS 2371 | 3 MATH 2341 | 4 |  |  |  |
| PHYS 2372 | 1 BIOL 1113 | 4 |  |  |  |
| MATH 2321 | 4 BIOL 1114 | 1 |  |  |  |
| CHEM 1211 | 4 EESC 2000 | 1 |  |  |  |
| CHEM 1212 | 1 Elective | 4 |  | 0 |  |
| CHEM 1213 | 0 |  | 0 | 0 |  |

Year 3
Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours
0 PHYS 36024 PHYS $3600^{4} 4$ Co-op 0

|  |  | PHYS <br> advanced elective | 4 PHYS $4623{ }^{11}$ | 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Technical elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | PHYS $4621{ }^{10}$ | 4 PHYS $3603{ }^{7}$ | 4 Co-op | 0 |
|  |  | PHYS $4651{ }^{12}$ | 4 Elective | 4 |  |
|  |  | ENGW 3307 | 4 |  |  |
|  |  | Technical elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op | 0 | PHYS $4652{ }^{13}$ | 4 |  |  |
|  |  | PHYS $5318{ }^{9}$ | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 |  |  |

Total Hours: 135

## FOUR YEARS, TWO CO-OPS IN SUMMER 2/FALL

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 BIOL 1113 | 4 |  |  |
| BIOL 1111 | 4 BIOL 1114 | 1 |  | 8 |
| BIOL 1112 | 1 |  | 8 |  |
|  | 19 | 18 |  |  |



## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :---: | :---: | :---: |
| Co-op | PHYS $5318^{9}$ | 4 PHYS 4623 |  |  |

elective

| Technical <br> elective | 4 |  |  |
| :---: | :---: | :---: | :---: |
| 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | PHYS 4621 | 4 |
|  | PHYS 4651 | 42 |
|  | PHYS 4652 | 4 |
|  | Elective | 4 |
|  | 0 | 4 |
|  | 16 |  |

Total Hours: 135

## FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1

Year 1
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { PHYS 1000 } & 1 \text { PHYS 1165 } & 4 & \text { Vacation } & 0 \text { Vacation }\end{array}\right) 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 $^{1}$ | 4 Co-op | 0 Co-op | 0 MATH 2341 | 4 |
| PHYS 2371 $^{3}$ | 3 |  | Elective | 4 |
| PHYS 2372 $^{3}$ | 1 |  |  |  |
| MATH 2321 | 4 |  |  |  |
| CHEM 1211 | 4 |  |  |  |
| CHEM 1212 | 1 |  |  | 8 |
| CHEM 1213 | 0 |  | 0 |  |
| EESC 2000 | 1 |  |  |  |
|  | 18 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| PHYS $3602^{6}$ | 4 Co-op | 0 Co-op | 0 PHYS 2305 | 4 |
| Technical | 4 |  | PHYS $3600^{4}$ | 4 |
| elective |  |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ${\text { PHYS } 3603^{7}}^{\text {P }}$ | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS $4621^{10}$ | 4 |  |  |  |
| PHYS $4623^{11}$ | 4 |  |  |  |
| Elective | 4 |  |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| PHYS 4651 ${ }^{12}$ | $4{\text { PHYS } 4652^{13}}^{2}$ | 4 |
| ENGW 3307 | $4{\text { PHYS } 5318^{9}}^{2}$ | 4 |
| Elective | 4 PHYS <br> advanced <br> elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 135
FOUR YEARS, TWO CO-OPS IN SPRING/SUMMER 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | H |  |  |  |
| PHYS 1000 | 1 PHYS 1165 | 4 MATH 2321 | 4 MATH 2341 | 4 |
| PHYS 1161 | 4 PHYS 1166 | 1 Elective | 4 Elective | 4 |
| PHYS 1162 | 1 PHYS 1167 | 0 |  |  |
| PHYS 1163 | 0 MATH 1342 | 4 |  |  |
| MATH 1341 | 4 GE 1111 | 4 |  |  |
| ENGW 1111 | 4 BIOL 1113 | 4 |  |  |
| BIOL 1111 | 4 BIOL 1114 | 1 |  | 8 |
| BIOL 1112 | 1 |  | 8 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 2303 | 4 Co-op | Co-op | PHYS 3600 |  | | 4 |
| :--- |
| PHYS 2371 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS $3602^{6}$ | 4 Co-op | Co-op | PHYS 2305 ${ }^{2}$ | 4 |
| ENGW 3307 | 4 |  | Elective | 4 |
| Technical <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 4


[^14]${ }^{1}$ PHYS 2303 offered every fall \& spring
PHYS 2305 offered every spring \& summer 2 (even years)
PHYS 2371/2372 offered every fall
${ }^{4}$ PHYS 3600 offered every summer $1 \&$ summer 2
${ }^{5}$ PHYS 3601 offered spring (even years) \& fall (odd years)
${ }^{6}$ PHYS 3602 offered every fall \& spring
${ }^{7}$ PHYS 3603 offered fall (even years) \& summer 1 (odd years)
${ }^{8}$ PHYS 5115 offered every fall \& spring
${ }^{9}$ PHYS 5318 offered every spring
${ }^{10}$ PHYS 4621 offered fall (even years) \& spring (odd years)
${ }^{11}$ PHYS 4623 offered fall \& summer 1 (even years)
${ }^{12}$ PHYS 4651 offered fall \& spring (odd years)
${ }^{13}$ PHYS 4652 offered every spring

## Computer Science and Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

## Computer Science Overview

| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| :--- | :--- | :--- |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |

Computer Science Fundamental Courses
A grade of C - or higher is required:

| CS 1800 | Discrete Structures | 4 |
| :--- | :--- | :--- |
| and CS 1801 | and Recitation for CS 1800 |  |
| CS 2500 | Fundamentals of Computer Science 1 | 5 |

and CS $2501 \quad$ and Lab for CS 2500
CS $2510 \quad$ Fundamentals of Computer Science 2
and CS 2511 and Lab for CS 2510
CS 2800 Logic and Computation
5
and CS 2801 and Lab for CS 2800

| Computer Science Required Courses |  |
| :--- | :--- |
| CS 3500 | Object-Oriented Design |


| CS 3800 | Theory of Computation | 4 |
| :--- | :--- | :--- |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Senior Seminar
CS 4000 Senior Seminar 1
or THTR 1170 The Eloquent Presenter

| Physics Courses |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 | 5 |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 | 5 |
| Intermediate Physics |  |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 2371 and PHYS 2372 | Electronics and Lab for PHYS 2371 (Integrative course) | 4 |
| Advanced Physics |  |  |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| Capstone and Electives |  |  |
|  | Title | Hours |
| Capstone |  |  |
| Complete either physics capston | computer science capstone or the | 4 |
| Computer Science Capstone |  |  |
| CS 4100 | Artificial Intelligence |  |
| CS 4300 | Computer Graphics |  |
| CS 4900 | Honors Senior Seminar |  |
| CS 4750 | Secure Wireless Ad Hoc Robots on Mission (SWARM) 1 |  |
| CS 4760 | Secure Wireless Ad Hoc Robots on Mission (SWARM) 2 |  |
| CS 4410 | Compilers |  |
| CS 4150 | Game Artificial Intelligence |  |
| CS 4550 | Web Development |  |
| CS 4650 | High Performance Computing |  |
| CS 4997 | Computer Science Thesis |  |
| CS 4998 | Computer Science Thesis Continuation |  |
| Physics Capstone |  |  |
| PHYS 5318 | Principles of Experimental Physics |  |
| Computer Science Elective |  |  |
| The computer science elective is not required if the student has completed the computer science capstone (above). With advisor approval, a directed study, project study, or appropriate graduate-level course may be taken as a computer science elective. |  |  |
| Complete one course from the following ranges: |  | 4 |
| CS 2600 to CS 7999 but not CS 5010 |  |  |
| IS 2000 to IS 7999 but not IS 4900 |  |  |
| Physics Elective |  |  |
| Only one physics elective is required if the student has completed the physics capstone (above). |  |  |
| Complete two co | es from the following range: | 8 |

## Mathematics Integrative Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Calculus |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering (a grade of C - or higher is required) | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering (a grade of C - or higher is required) | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| Additional Mathematics Requirements |  |  |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 4525 | Applied Analysis | 4 |
| Computing and Social Issues |  |  |
| Code | Title | Hours |
| Complete one of the following: |  | 4 |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |

Advanced Writing in the Disciplines

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :---: | :--- |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

Code Title Hours
Complete six general electives. 24

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Exploring Creative Expression and Innovation
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |  |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |  |
| CS 2500 | 4 CS 2511 | 1 |  |  |  |
| CS 2501 | 1 MATH 1342 | 4 |  |  |  |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |  |
| PHYS 1162 | 1 ENGW 1111 | 4 |  | 0 |  |
| CS 1200 | 1 |  | 0 |  |  |
| CS 1801 | 0 | 18 |  |  |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 CS 4800 | 4 Vacation | 0 Co-op | 0 |
| PHYS 2303 | 4 MATH 2321 | 4 |  |  |
| PHYS 2371 | 3 PHYS 2305 | 4 |  |  |
| PHYS 2372 | 1 MATH 2341 | 4 |  |  |
| CS 2800 | 4 CS 1210 | 1 |  | 0 |
| CS 2801 | 1 |  | 0 |  |
|  | 17 | 17 |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 3800 | 4 PHYS 3600 | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | PHYS 3602 | 4 |  |  |
|  | ENGW 3302 | 4 |  | 0 |

## Year 4

| Fall | Hours | Spring H | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 | CS 4500 | 4 Elective | 4 Co-op | 0 |
|  |  | MATH 4525 | 4 Elective | 4 |  |
|  |  | PHYS <br> undergraduate <br> elective | e 4 |  |  |
|  |  | SOCL 4528 | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |


| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| Co-op | 0 CS <br> undergraduate <br> elective | 4 |
|  | CS 4000 | 1 |
|  | PHYS <br> undergraduate <br> elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 17 |  |

[^15]Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 1801 | 0 CS 2511 | 1 |  |  |
| CS 2500 | 4 MATH 1342 | 4 |  |  |
| CS 2501 | 1 PHYS 1165 | 4 |  |  |
| PHYS 1161 | 4 PHYS 1166 | 1 |  |  |
| PHYS 1162 | 1 ENGW 1111 | 4 |  |  |
| CS 1200 | 1 |  |  | 0 |
| MATH 1341 | 4 | 18 | 0 |  |
|  | 19 |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHYS 2303 | 4 |  |  |  |
| PHYS 2371 | 3 |  |  |  |
| PHYS 2372 | 1 |  |  |  |
| CS 2800 | 4 |  |  | 0 |
| CS 2801 | 1 |  | 0 | 0 |
| CS 1210 | 1 |  |  |  |
|  | 18 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CS 4800 | 4 Co-op | 0 Co-op | 0 PHYS 2305 | 4 |
| MATH 2321 | 4 |  | PHYS 3600 | 4 |
| MATH 2341 | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3800 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  | Elective | 4 |
| PHYS 3602 | 4 |  |  |  |
| ENGW 3302 | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS 4500 | 4 CS <br> undergraduate <br> elective | 4 |
| MATH 4525 | 4 CS 4000 | 1 |
| PHYS <br> undergraduate <br> elective | 4 PHYS <br> undergraduate <br> elective | 4 |
| SOCL 4528 | 4 Elective | 4 |
|  | Elective | 4 |
|  | 16 | 17 |

Total Hours: 136

## Mathematics and Physics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Mathematics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  |  |
| A grade of C or higher is required: |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |$\quad 4$

Mathematics Elective
Complete one course from the following range: 4

MATH 3101 to MATH 4899
Physics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Physics 1 |  |  |
| Complete one of the following: | 5 |  |
| PHYS 1161 |  | Physics 1 |
| and PHYS 1162 | and Lab for PHYS 1161 |  |
| PHYS 1151 Physics for Engineering 1 <br> and PHYS 1152 and Lab for PHYS 1151 <br> and PHYS 1153 and Interactive Learning Seminar for <br> PHYS 1151 |  |  |

## Physics 2

Complete one of the following: 5 PHYS 1165 Physics 2 and PHYS 1166 and Lab for PHYS 1165

| PHYS 1155 | Physics for Engineering 2 |
| :--- | :--- |
| and PHYS 1156 | and Lab for PHYS 1155 |
| and PHYS 1157 | and Interactive Learning Seminar for |
|  | PHYS 1155 |


| Intermediate Physics |  |  |
| :--- | :--- | ---: |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical | 4 |
|  | Mechanics |  |
| PHYS 2371 | Electronics | 4 |
| and PHYS 2372 | and Lab for PHYS 2371 |  |

Advanced Physics

| PHYS 3600 | Advanced Physics Laboratory | 4 |
| :--- | :--- | :--- |
| PHYS 3602 | Electricity and Magnetism | 4 |
| Elective Courses |  | 8 |
| Complete two courses from the following range: |  |  |

```
PHYS 3000 to PHYS }799
```


## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| PHYS 3601 | Classical Dynamics | 4 |
| MATH 4545 | Fourier Series and PDEs | 4 |
| or MATH 4525 | Applied Analysis |  |

## Combined-Major Credit Requirement

Complete 83 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PHYS 1165 | 4 |  |  |
| Elective | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 Elective | 4 |  |  |
| PHYS 1162 | 1 Elective | 4 |  | 0 |
| MATH 1000 | 1 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| Elective | 4 MATH 2331 | 4 |  |  |
| PHYS 2303 | 4 PHYS 2305 | 4 |  |  |
| PHYS 2371 | 3 Elective | 4 |  |  |
| PHYS 2372 | 1 EESC 2000 | 1 |  | 0 |
|  | 16 | 17 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 | PHYS 3601 | 4 PHYS 3600 | 4 Co-op |


|  | MATH 3000 |  | 1 |  | 8 |  | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  | 17 |  |  |  |  |
| Year 4 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | MATH 3175 | 4 | Elective | 4 | Co-op | 0 |
|  |  | MATH elective | 4 | Elective | 4 |  |  |
|  |  | PHYS <br> undergraduate elective | 4 |  |  |  |  |
|  |  | ENGW 3315 | 4 |  |  |  |  |
|  | 0 |  | 16 |  | 8 |  | 0 |
| Year 5 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |  |
| Co-op | 0 | PHYS <br> undergraduate elective | 4 |  |  |  |  |
|  |  | PHYS <br> undergraduat elective | 4 |  |  |  |  |
|  |  | MATH 4025 | 4 |  |  |  |  |
|  |  | MATH 4545 | 4 |  |  |  |  |
|  | 0 |  | 16 |  |  |  |  |

Total Hours: 133

Physics and Music with Concentration in Music Composition and Technology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Physics Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Physics |  |  |
| Physics 1 |  |  |
| PHYS 1161 and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 | 5 |
| Physics 2 |  |  |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 | 5 |
| Intermediate Physics |  |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |


| PHYS 2371 <br> and PHYS 2372 | Electronics <br> and Lab for PHYS 2371 | 4 |
| :--- | :--- | :--- |
| Advanced Physics |  |  |$\quad$ Advanced Physics Laboratory $\quad 4$.

## Music Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Music Theory and Historical Traditions |  |  |
| MUSC 1201 | Music Theory 1 | 4 |
| MUSC 1202 | Music Theory 2 | 4 |
| MUST 1301 | Introduction to Composition | 4 |
| MUST 2315 | History of Electronic Music | 4 |
| MUSC 3560 | Historical Traditions: Music since 1900 | 4 |
| Music Technology |  | 4 |
| MUST 1220 | Introduction to Music Technology | 4 |
| MUST 3421 | Digital Audio Processing | 4 |
| MUST 4520 | Interactive Real-Time Performance | 4 |

## Music Ensemble

Complete two music ensembles: 2

| 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 Ensemble |
| MUSC 1916 | Contemporary Music Ensemble |
| MUSC 1917 | Jazz Choir and Combo |
| MUSC 1918 | World Music Ensemble |
| MUSC 1919 | Fusion Ensemble |
| MUSC 1920 | Pep Band |
| MUSC 1921 | World Fusion Ensemble |

Music Technology Capstone/Senior Recital
MUST 4611 Music Technology Capstone/Senior 4
Music Electives RequirementsMUSC 2000 to MUSC 4993Physics/Music Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Course Requirements |  |  |
| MUST 1220 | Introduction to Music Technology | 4 |
| MUST 3421 | Digital Audio Processing | 4 |

## Physics and Music Combined-Major Credit Requirement

Complete 108 semester hours in the major.

## Program Requirement

128 total semester hours required

## Physics and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Breadth Courses

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |

## Physics Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Physics |  |  |
| Physics 1 |  |  |
| Complete one of the following: |  | 5 |
| PHYS 1161 and PHYS 1162 | Physics 1 and Lab for PHYS 1161 |  |
| PHYS 1151 <br> and PHYS 1152 <br> and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |
| Physics 2 |  |  |
| Complete one of the | following: | 5 |
| PHYS 1165 and PHYS 1166 | Physics 2 and Lab for PHYS 1165 |  |
| PHYS 1155 <br> and PHYS 1156 <br> and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 |  |


| Intermediate Physics |  | Modern Physics |
| :--- | :--- | :--- |
| PHYS 2303 | Thermodynamics and Statistical <br> Mechanics | 4 |
| PHYS 2305 | Electronics |  |
| and PHYS 2372 | and Lab for PHYS 2371 | 4 |
| Advanced Physics |  | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |



## Philosophy Major Requirements

Code Title Hours

Philosophy Required Courses

| PHIL 1115 | Introduction to Logic | 4 |
| :--- | :--- | :--- |
| or PHIL 1215 | Symbolic Logic |  |
| PHIL 2325 | Ancient Philosophy and Political <br> Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| PHIL 4500 | Theory of Knowledge | 4 |
| or PHIL 4505 Metaphysics |  |  |
| Philosophy Seminar |  | 4 |


| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in <br>  |

Additional Electives

Complete four PHIL courses.

## Physics/Philosophy Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Course Requirements |  |  |
| PHIL 4510 | Philosophy of Science | 4 |
| PHYS 3601 | Classical Dynamics | 4 |

## Physics and Philosophy Major Credit Requirement <br> Complete 98 semester hours in the major.

## Program Requirement

131 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHYS 1000 | 1 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| Elective | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 PHYS 1167 | 0 |  |  |
| PHYS 1162 | 1 PHIL 1115 | 4 |  |  |
| PHYS 1163 | 0 ENGW 1111 | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 2325 | 4 PHYS 2305 | 4 Vacation | 0 Co-op | 0 |
| MATH 2321 | 4 MATH 2341 | 4 |  |  |
| PHYS 2303 | 4 PHIL 2330 | 4 |  |  |
| PHYS 2371 | 3 Elective | 4 | 0 | 0 |

Year 3

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 | PHYS 3601 |  | Elective |  | Co-op | 0 |
|  |  | PHYS 3602 | 4 | PHYS 3600 | 4 |  |  |
|  |  | PHIL undergraduate elective | - 4 |  |  |  |  |
|  |  | PHIL 4505 | 4 |  |  |  |  |
|  | 0 |  | 16 |  | 8 |  | 0 |
| Year 4 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | PHIL undergraduate elective | e 4 | Elective |  | Co-op | 0 |
|  |  | ENGW 3302 |  | PHYS undergraduat elective | 4 |  |  |
|  |  | Elective | 4 |  |  |  |  |
|  |  | PHIL 4510 | 4 |  |  |  |  |
|  | 0 |  | 16 |  | 8 |  | 0 |
| Year 5 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |  |  |
| Co-op | 0 | PHIL 4902 | 4 |  |  |  |  |
|  |  | Elective | 4 |  |  |  |  |
|  |  | PHYS 5115 | 4 |  |  |  |  |
|  |  | PHYS <br> undergraduat elective | 4 |  |  |  |  |
|  | 0 |  | 16 |  |  |  |  |

[^16]
## Chemical Engineering and Physics, BSCHE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum required in CHME courses

## Mathematics/Science Requirement

Complete 47 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 |  |  |
| and CHEM 1153 |  |  |$\quad$| General Chemistry for Engineers |
| :--- |
| and Recitation for CHEM 1151 |$\quad 4$

## Supplemental Credit

1 semester hour from the following course counts toward the 1 mathematics/science requirement:

GE 1502 Cornerstone of Engineering 2

## Advanced Chemistry Requirement

Complete 22 semester hours in advanced chemistry as indicated below.

| Code | Title | Hours |
| :--- | :--- | ---: |
| BIOL 1111 | General Biology 1 | 4 |
| or BIOL 1115 | General Biology 1 for Engineers |  |


| CHEM 2311 <br> and CHEM 2312 <br> and CHEM 2319 | Organic Chemistry 1 <br> and Lab for CHEM 2311 <br> and Recitation for CHEM 2311 | 5 |
| :--- | :--- | :--- |
| PHYS 2303 | Modern Physics |  |
| PHYS 5115 | Quantum Mechanics |  |
| Complete one of the following: |  |  |
| CHEM 2313 <br> and CHEM 2314 <br> and CHEM 2320 | Organic Chemistry 2 <br> and Lab for CHEM 2313 <br> and Recitation for CHEM 2313 | 4 |
| CHEM 2317 <br> and CHEM 2318 <br> and CHEM 2325 | Organic Chemistry 2 for Chemistry <br> Majors <br> and Lab for CHEM 2317 <br> and Recitation for CHEM 2317 | 5 |

Total Hours

## Engineering

Complete 49 semester hours in engineering as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Engineering |  |  |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| CHME 2308 | Conservation Principles in Chemical Engineering | 4 |
| CHME 2310 and CHME 2311 | Transport Processes 1 and Lab for CHME 2310 | 6 |
| CHME 3312 and CHME 3313 | Transport Processes 2 and Separations and Lab for CHME 3312 | 6 |
| CHME 2320 | Chemical Engineering Thermodynamics 1 | 4 |
| CHME 3322 | Chemical Engineering Thermodynamics 2 | 4 |
| CHME 4510 | Chemical Engineering Kinetics | 4 |
| CHME 4701 | Capstone Design 1: Process Analysis | 4 |
| CHME 4703 | Capstone Design 2: Chemical Process Design | 4 |

## Advanced Engineering Elective

Complete one course numbered between 4000 and 5999 from any of the following subject areas:

CHME, CIVE, EECE, ME, IE, MEIE, and ENGR
Supplemental Credit

| 3 semester hours from the following course count toward the |
| :--- |
| engineering requirement: |
| GE $1501 \quad$ Cornerstone of Engineering 1 |


| 2 semester hours from the following course count toward the |
| :--- |
| engineering requirement: |

GE 1502 Cornerstone of Engineering 2

## Professional Development

Complete 5 semester hours in professional development as indicated below.

| Code | Title | Hours |
| :--- | :--- | :---: |
| Professional Development |  |  |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| CHME 2000 | Introduction to Engineering Co-op <br> Education | 1 |
| CHME 3000 | Professional Issues in Engineering | 1 |

The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Code Title Hours

## Writing

A grade of $C$ or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :--- | :--- | ---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions | Interdisciplinary Advanced Writing in the |
|  | Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with general electives.

## Required General Electives

Complete two academic, nonremedial, nonrepetitive courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

139 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 PHYS 1155 | 3 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1151 | 3 PHYS 1156 | 1 |  |
| CHEM 1153 | 0 PHYS 1152 | 1 PHYS 1157 | 1 |  |
| GE 1000 | 1 PHYS 1153 | 1 Elective | 4 |  |
| GE 1111 | 4 GE 1111 | 4 |  |  |
| Elective | 4 ENGW 1111 | 4 |  | 0 |
|  | 17 | 17 | 9 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 MATH 2341 | 4 Vacation | 0 Co-op | 0 |
| CHEM 2311 | 4 PHYS 2303 | 4 |  |  |
| CHEM 2312 | 1 CHME 2000 | 1 |  |  |
| PHYS 2371 | 3 CHME 2310 | 4 |  |  |
| PHYS 2372 | 1 CHME 2311 | 2 |  | 0 |
| CHME 2308 | 4 CHME 2320 | 4 | 0 | 0 |

## Additional Required Courses

| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | CHEM 2313 | 4 PHYS 3600 | 4 Co-op | 0 |
|  |  | CHEM 2314 | 1 ENGW 3302 | 4 |  |
|  |  | CHME 3312 | 4 |  |  |
|  |  | CHME 3313 | 2 |  |  |
|  |  | CHME 3322 | 4 |  |  |
|  |  | BIOL 1115 | 4 |  |  |
|  |  | BIOL 1116 | 1 |  |  |
|  | 0 |  | 20 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 3601 | 4 Vacation | 0 Co-op | 0 |
|  | PHYS 3602 | 4 |  |  |
|  | CHME 3000 | 1 |  |  |
|  | CHME 4510 | 4 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 PHYS 5115 | 4 |
|  | PHYS 5318 | 4 |
|  | CHME 4703 | 4 |
|  | CHME <br> technical <br> elective | 4 |
| 0 | 16 |  |

Total Hours: 140

## Computer Engineering and Physics, BSCompE

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 63 semester hours in mathematics and science as indicated below.

## Code

Title
Hours

## Required Mathematics/Science

| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| :--- | :--- | ---: |
| CS 1800 <br> and CS 1801 | Discrete Structures <br> and Recitation for CS 1800 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering |  |$\quad 4$

## Engineering

Complete 48 semester hours in engineering as indicated below.

| Code | Title | Hours |
| :--- | :--- | :--- |
| Required Courses |  |  |


| EECE 2150 and EECE 2151 | Circuits and Signals: Biomedical Applications and Lab for EECE 2150 | 5 |
| :---: | :---: | :---: |
| EECE 2160 and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Computer Engineering Fundamentals |  |  |
| EECE 2322 and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 |  |
| EECE 2540 | Fundamentals of Networks |  |
| EECE 2560 | Fundamentals of Engineering Algorithms | 4 |
| Electrical Engineering Fundamentals |  |  |
| If more than one electrical engineering fundamentals course is taken, it can count as a technical elective. |  |  |
| Complete one of the following: |  | 4 |
| EECE 2412 and EECE 2413 | Fundamentals of Electronics and Lab for EECE 2412 |  |
| EECE 2520 | Fundamentals of Linear Systems |  |
| EECE 2530 and EECE 2531 | Fundamentals of Electromagnetics and Lab for EECE 2530 |  |
| Capstone Courses |  |  |
| EECE 4790 | Electrical and Computer Engineering Capstone 1 | 4 |
| EECE 4792 | Electrical and Computer Engineering Capstone 2 | 4 |
| Technical Electives |  |  |
| Complete two of the following: |  |  |
| EECE 2750 | Enabling Engineering |  |
| EECE 3154 | Hyperspectral Imaging in an International Context |  |
| EECE 4993 | Independent Study |  |
| EECE 2412 to EECE 2530 |  |  |
| EECE 3324 to EECE 4698 |  |  |
| EECE 5576 to EECE 5698 |  |  |
| ENGR 5670 | Sustainable Energy: Materials, Conversion, Storage, and Usage |  |
| GE 4608 | Nanotechnology in Engineering |  |
| CS 3200 | Database Design |  |
| CS 3500 | Object-Oriented Design |  |
| CS 3540 to CS 3800 |  |  |
| CS 4100 to CS 4650 |  |  |
| CS 4740 to CS 4850 |  |  |
| CS 5010 to CS 5610 |  |  |
| CS 5650 to CS 5850 |  |  |
| IS 4200 to IS 4700 |  |  |
| Supplemental Credit |  |  |
| 3 semester hours from the following course count toward the engineering requirement: |  |  |
| GE 1501 Cornerstone of Engineering 1 |  |  |
| 2 semester hours engineering requir | m the following course count toward the ent: | 2 |

GE 1502 Cornerstone of Engineering 2

5 Professional Development

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Professional Development |  |  |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| EECE 2000 | Introduction to Engineering Co-op | 1 |
| EECE 3000 | Professional Issues in Engineering | 1 |
| Additional Required Courses |  |  |
| One credit hour from each of the following courses counts |  |  |
| toward the engineering requirement: | 2 |  |
| GE 1501 | Cornerstone of Engineering 1 |  |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Integrative Requirement

The following course, which counts toward the engineering requirement above, is an integrative course:
Code Title Hours

EECE $4790 \quad$ Electrical and Computer Engineering 4

## Additional NUpath Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Writing |  |  |
| A grade of C or higher is required: | 4 |  |
| ENGW 1111 | First-Year Writing | 4 |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions <br> or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI), and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements through general electives.

## Required General Electives

Complete two academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

131 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1341 | 4 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| CHEM 1151 | 4 PHYS 1165 | 4 |  |  |
| CHEM 1153 | 0 PHYS 1166 | 1 |  |  |


| PHYS 1161 | 4 GE 1111 | 4 |  |  |
| :--- | :--- | :---: | :--- | :--- |
| PHYS 1162 | 1 ENGW 1111 | 4 |  |  |
| GE 1000 | 1 |  |  |  |
| GE 1110 | 4 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 2321 | 4 PHYS 2305 | 4 Vacation | 0 Co-op | 0 |
| MATH 2341 | 4 EECE 2000 | 1 |  |  |
| PHYS 2303 | 4 EECE 2150 | 4 |  |  |
| EECE 2160 | 3 EECE 2151 | 1 |  |  |
| EECE 2161 | 1 <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> fundamental <br> Course 1800 | 5 | 4 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 PHYS 3602 | 4 Elective | 4 Co-op | 0 |
|  | EE <br> fundamental course | 5 PHYS 3600 | 4 |  |
|  | CE <br> fundamental course | 5 |  |  |
|  | ENGW 3302 | 4 |  |  |
|  | 0 | 18 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 PHYS 5115 | 4 EECE 4790 | 4 Co-op | 0 |
|  | EECE 3000 | 1 EECE <br> technical elective | 4 |  |
|  | CE <br> fundamental course | 5 |  |  |
|  | MATH 3081 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 18 | 8 | 0 |


| Year 5 |  |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hours |
| Co-op | EECE <br> technical <br> elective | 4792 |$\quad 4$| PHYS |
| :--- |
| advanced |
| elective |
| Elective |

Total Hours: 138

## Electrical Engineering and Physics, BSEE

This intercollege combined 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 major combines a major in physics from the Department of Physics in the College of Science 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, a combined 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 Department of Electrical and Computer Engineering or the Department of Physics as early as possible, preferably prior to registering for freshman courses.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in EECE courses

## Mathematics/Science Requirement

Complete 57 semester hours in mathematics and science as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers and Recitation for CHEM 1151 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| Complete one of the following: |  | 5 |
| PHYS 1151 and PHYS 1152 and PHYS 1153 | Physics for Engineering 1 and Lab for PHYS 1151 and Interactive Learning Seminar for PHYS 1151 |  |


| PHYS 1161 <br> and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |  |
| :---: | :---: | :---: |
| Complete one of the following: |  | 5 |
| PHYS 1155 and PHYS 1156 and PHYS 1157 | Physics for Engineering 2 and Lab for PHYS 1155 and Interactive Learning Seminar for PHYS 1155 |  |
| PHYS 1165 and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |  |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical Mechanics | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |
| Advanced Physics Elective |  |  |
| Complete one of the following: |  | 4 |
| MATH 4606 | Mathematical and Computational Methods for Physics |  |
| PHYS 3600 to PHYS 7999 |  |  |
| Supplemental Credit |  |  |
| 2 semester hours from the following course count toward the mathematics/science requirement: |  | 2 |
| EECE 3468 | Noise and Stochastic Processes |  |
| 1 semester hour from the following course counts toward the mathematics/science requirement: |  | 1 |
| GE 1502 | Cornerstone of Engineering 2 |  |

## Engineering Requirement

Complete 51 semester hours in engineering as indicated below.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| EECE 2150 and EECE 2151 | Circuits and Signals: Biomedical Applications and Lab for EECE 2150 | 5 |
| EECE 2160 <br> and EECE 2161 | Embedded Design Enabling Robotics and Lab for EECE 2160 | 4 |
| Electrical Engineering Fundamentals |  |  |
| EECE 2412 <br> and EECE 2413 | Fundamentals of Electronics and Lab for EECE 2412 | 5 |
| EECE 2520 | Fundamentals of Linear Systems | 4 |
| EECE 2530 and EECE 2531 | Fundamentals of Electromagnetics and Lab for EECE 2530 | 5 |
| Computer Engineering Fundamentals |  |  |
| If more than one computer engineering fundamentals course is taken, it can count as a technical elective. |  |  |
| Complete one of the following: |  | 4-5 |
| EECE 2322 <br> and EECE 2323 | Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322 |  |
| EECE 2540 | Fundamentals of Networks |  |
| EECE 2560 | Fundamentals of Engineering Algorithms |  |
| Capstone Courses |  |  |
| EECE 4790 | Electrical and Computer Engineering Capstone 1 | 4 |

EECE 4792 Electrical and Computer Engineering ..... 4
Capstone 2
EECE Technical Electives
Complete two of the following: ..... 8-9
EECE $2322 \quad$ Fundamentals of Digital Design andand EECE 2323 Computer Organizationand Lab for EECE 2322

| EECE 3154 | Hyperspectral Imaging in an <br> International Context |
| :--- | :--- |
| EECE 4993 | Independent Study |
| ENGR 5670 | Sustainable Energy: Materials, <br> Conversion, Storage, and Usage |

GE 4608 Nanotechnology in Engineering
EECE 2540 to EECE 2750
EECE 3324 to EECE 3410
EECE 4512 to EECE 4698
EECE 5576 to EECE 5698

## Supplemental Credit

2 semester hours from the following course count toward the

## engineering requirement:

EECE $3468 \quad$ Noise and Stochastic Processes

3 semester hours from the following course count toward the 3 engineering requirement:
GE 1501 Cornerstone of Engineering 1
2 semester hours from the following course count toward the
engineering requirement:

GE 1502 Cornerstone of Engineering 2

## Professional Development

Code Title Hours
Required Professional Development
GE $1000 \quad$ Introduction to the Study of Engineering 1
EECE 2000 Introduction to Engineering Co-op 1 Education
EECE $3000 \quad$ Professional Issues in Engineering 1
Additional Required Courses
The remaining credit from each of the following courses will 1 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

Code Title Hours

## Writing

A grade of C or higher is required:

| ENGW 1111 | First-Year Writing | 4 |
| :---: | :--- | :---: |
| ENGW 3302 | Advanced Writing in the Technical | 4 |
| or ENGW 3315 | Professions |  |
|  | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Code Title
Complete three academic, nonremedial, nonrepetitive Hours courses, each equivalent to 4 semester hours.

## Course Work That Does Not Count Toward the Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

132 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 | 4 MATH 1342 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 3602 | 4 Elective | 4 Co-op | 0 |
|  | CE <br> fundamental <br> course | 5 PHYS 3600 | 4 |  |
|  | EE <br> fundamental <br> course | 5 |  |  |
|  | ENGW 3302 | 4 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| Co-op | 0 EECE 3468 | 4 EECE 4790 | 4 Co-op | 0 |
|  | PHYS 5115 | 4 EECE <br> technical <br> elective | 4 |  |
|  |  |  |  |  |


|  |  | EECE <br> technical elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | EE fundamental course | 5 |  |  |
|  |  | EECE 3000 | 1 |  |  |
|  | 0 |  | 18 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op | 0 | EECE 4792 | 4 |  |  |
|  |  | PHYS <br> advanced elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 |  |  |

Total Hours: 138

## Mechanical Engineering and Physics, BSME

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Major GPA Requirement

2.000 minimum GPA required in IE, ME, and MEIE courses

## Mathematics/Science Requirement

Complete 59 semester hours in mathematics and science as indicated below:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Mathematics/Science |  |  |
| CHEM 1151 <br> and CHEM 1153 | General Chemistry for Engineers <br> and Recitation for CHEM 1151 | 4 |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |$\quad 4$


| PHYS 2371 | Electronics | 4 |
| :--- | :--- | :--- |
| and PHYS 2372 | and Lab for PHYS 2371 | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3601 | Classical Dynamics | 4 |

Advanced Physics Elective
Complete one 4-semester-hour course in the following range: PHYS 3600 to PHYS 5999

| Supplemental Credit |
| :--- |
| 1 semester hour from the following course counts toward the |
| mathematics/science requirement: |
| GE $1502 \quad$ Cornerstone of Engineering 2 |

## Engineering Requirement

Complete 59 semester hours in engineering as indicated below:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Engineering |  |  |
| ME 2340 and ME 2341 | Introduction to Material Science and Lab for ME 2340 | 5 |
| ME 2350 | Engineering Mechanics and Design | 4 |
| ME 2355 and ME 2356 | Mechanics of Materials and Lab for ME 2355 | 5 |
| ME 2380 | Thermodynamics | 4 |
| ME 3455 and ME 3456 | Dynamics and Vibrations and Lab for ME 3455 | 5 |
| $\begin{aligned} & \text { ME } 3475 \\ & \text { or ME } 3480 \end{aligned}$ | Fluid Mechanics <br> International Applications of Fluid Mechanics | 4 |
| ME 4505 and ME 4506 | Measurement and Analysis with Thermal Science Application and Lab for ME 4505 | 5 |
| ME 4508 | Mechanical Engineering Computation and Design | 4 |
| ME 4550 | Mechanical Engineering Design | 4 |
| ME 4555 | System Analysis and Control | 4 |
| ME 4570 | Thermal Systems Analysis and Design | 4 |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |

Supplemental Credit
3 semester hours from the following course counts toward 3
the engineering requirement:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- | :--- |
| 2 semester hours from the following course counts toward | 2 |

the engineering requirement:
GE 1502 Cornerstone of Engineering 2

## Professional Development Requirement

| Code | Title | Hours |
| :--- | :--- | :---: |
| Professional Development |  |  |
| GE 1000 | Introduction to the Study of Engineering | 1 |
| MEIE 2000 | Introduction to Engineering Co-op | 1 |
| MEIE 3000 | Education |  |

## Additional Required Courses

The remaining credit from each of the following courses will 2 apply to the professional development area:

| GE 1501 | Cornerstone of Engineering 1 |
| :--- | :--- |
| GE 1502 | Cornerstone of Engineering 2 |

## Additional NUpath Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Writing | First-Year Writing (a grade of C or | 4 |
| ENGW 1111 | higher is required) |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions (a grade of C or higher is <br> required) | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |  |

## NUpath Requirements through General Electives

NUpath requirements Interpreting Culture (IC), Societies
and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses.
Students are responsible for satisfying these requirements with General Electives.

## Required General Electives

Complete 2 academic, nonremedial, nonrepetitve courses, each equivalent to 4 semester hours.

## Integrative Requirement

Principles of Experimental Physics (PHYS 5318) is part of the mathematics/science requirement above and is an integrative course.

## Course Work That Does Not Count Toward The Engineering Degree

Students in engineering are allowed to count a maximum of two pass/ fail courses toward their degree program. Only general electives outside the College of Engineering may be taken on a pass/fail grading basis. A maximum of one pass/fail course is allowed per semester.

## Program Requirement

139 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| MATH 1341 | 4 MATH 1342 | 4 | Vacation | 0 Vacation |$\quad 0$


| PHYS 2372 | 1 ME 2341 | 1 |  |  |
| :--- | :---: | :---: | :---: | ---: |
| ME 2350 | 4 ME 2355 | 4 |  |  |
|  | ME 2356 | 1 |  | 0 |
|  | ME 2380 | 4 | 0 |  |
| Year 3 | 16 | 19 |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 PHYS 3602 | 4 ME 3475 | 4 Co-op | 0 |
|  | ME 3455 | 4 PHYS 3600 | 4 |  |
|  | ME 3456 | 1 |  |  |
|  | ME 4508 | 4 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHYS 3601 | 4 ME 4550 | 4 Co-op | 0 |
|  | MEIE 3000 | 1 MEIE 4701 | 1 |  |
|  | ME 4505 | 4 Elective | 4 |  |
|  | ME 4506 | 1 |  |  |
|  | ME 4555 | 4 |  | 0 |

Year 5

| Fall | Hours Spring | Hours | Summer 2 | Hours |
| :--- | :---: | :---: | :--- | ---: |
| Co-op | 0 MEIE 4702 | 5 | Co-op | 0 |
|  | PHYS 5318 | 4 |  |  |
|  | PHYS <br> advanced <br> elective | 4 |  |  |
|  | Elective | 4 | 0 |  |

Total Hours: 139

## Physics, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses For Physics

Mathematics

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :---: | :---: | :---: |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2331 | Linear Algebra | 4 |
| MATH 2341 | Differential Equations and Linear Algebra for Engineering | 4 |
| MATH 3081 | Probability and Statistics | 4 |
| General Engineering |  |  |
| GE 1111 | Engineering Problem Solving and Computation | 4 |
| Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| Technical Electives |  |  |
| Complete 4 semester hours from the following: |  | 4 |
| MATH 2280 | Statistics and Software |  |
| MATH 2285 | Introduction to Multisample Statistics |  |
| MATH 2321 to MATH 5999 |  |  |
| PHYS 2303 to PHYS 7999 |  |  |
| CHEM 2311 to CHEM 5999 |  |  |
| BIOL 2301 to BIOL 5999 |  |  |
| ENVR 2300 to ENVR 5999 |  |  |
| CS 2990 to CS 4900 |  |  |
| CHME 2001 to CHME 4699 |  |  |
| CIVE 2001 to CIVE 4699 |  |  |
| EECE 2001 to EECE 5999 |  |  |
| ME 2001 to ME 4699 |  |  |
| IE 2001 to IE 4 |  |  |

Classical Mechanics and Math Methods
PHYS 7301 Classical Mechanics/Math Methods 4

## Physics Major Requirements

## Introductory Physics

Physics 1
Complete one of the following: 5

PHYS $1161 \quad$ Physics 1
and PHYS 1162 and Lab for PHYS 1161
PHYS $1151 \quad$ Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

Physics 2
Complete one of the following: 5
PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165
PHYS 1155 Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155

Intermediate Physics

| PHYS 2303 | Modern Physics | 4 |
| :--- | :--- | :--- |
| PHYS 2305 | Thermodynamics and Statistical | 4 |


| PHYS 2371 and PHYS 2372 | Electronics and Lab for PHYS 2371 | 4 |
| :---: | :---: | :---: |
| Advanced Physics |  |  |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3601 | Classical Dynamics | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |
| PHYS 5115 | Quantum Mechanics | 4 |
| Elective Course |  |  |
| Complete one of the following: |  | 4 |
| MATH 4606 | Mathematical and Computational Methods for Physics |  |
| PHYS 3500 to PHYS 7999 |  |  |
| Experiential Learning |  |  |
| Complete one course in experiential learning. Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information. |  |  |
| Senior Capstone |  |  |
| PHYS 5318 | Principles of Experimental Physics | 4 |
| Physics Major Credit Requirement |  |  |
| Complete 91 semester hours in the major. |  |  |
| Graduate Course Work to Be Taken as an Undergraduate Student |  |  |
| Graduate Courses |  |  |
| Complete the following courses as an undergraduate student. These courses fulfill requirements listed above: |  |  |
| PHYS 5115 | Quantum Mechanics | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |
| PHYS 7301 | Classical Mechanics/Math Methods | 4 |

## General Electives

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

## Program Requirements

133 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Applied Physics, BS/Engineering, MS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

4 University-Wide Requirements
All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Breadth Courses

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering |  |
| MATH 2321 | Calculus 3 for Science and Engineering |  |
| MATH 2341 | Differential Equations and Linear <br> Algebra for Engineering | 4 |
| General Engineering |  | 4 |
| GE 1111 | Engineering Problem Solving and <br> Computation | 4 |
| Chemistry | General Chemistry 1 |  |
| CHEM 1211 |  |  |
| and CHEM 1212 | and Lab for CHEM 1211 | 5 |

## Major Requirements

| Code Title | Hours |
| :--- | :--- |
| Introductory Physics |  |

Physics 1
Complete one of the following: 5
PHYS 1161 Physics 1
and PHYS 1162 and Lab for PHYS 1161
PHYS $1151 \quad$ Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

## Physics 2

Complete one of the following: 5

PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165
PHYS $1155 \quad$ Physics for Engineering 2
and PHYS 1156 and Lab for PHYS 1155
and PHYS 1157 and Interactive Learning Seminar for PHYS 1155

| Intermediate Physics |  | 4 |
| :--- | :--- | :--- |
| PHYS 2303 | Modern Physics | 4 |
| PHYS 2305 | Thermodynamics and Statistical <br> Mechanics | 4 |
| PHYS 2371 | Electronics |  |
| and PHYS 2372 | and Lab for PHYS 2371 |  |
| Advanced Physics |  | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |
| PHYS 3603 | Electromagnetic Waves and Optics | 4 |

## Experiential Learning

Note: The experiential learning requirement is waived following a student presentation connected with a co-op and/ or research experience. The requirement is often fulfilled by a talk at a Society of Physics Students meeting but can be fulfilled by an adequately documented presentation at a professional meeting or at an appropriate campus event. Contact your faculty advisor for additional information.

| PHYS 4996 | Experiential Education Directed Study | 4 |
| :--- | :--- | :---: |
| Senior Capstone |  | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |
| Engineering Undergraduate Requirements | 4 |  |
| EECE 2150 | Circuits and Signals: Biomedical <br> EECE 2412 | Applications |
| EECE 2520 | Fundamentals of Electronics | 4 |

## Graduate Course Work to Be Taken As an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

| Code | Hitle | Hours |
| :--- | :--- | ---: |
| Graduate Courses |  |  |
| Complete the following courses as an undergraduate student. |  |  |
| These courses fulfill requirements listed above: | 4 |  |
| PHYS 5115 | Quantum Mechanics | 4 |
| PHYS 5318 | Principles of Experimental Physics | 4 |

## Applied Physics and Engineering Major Credit Requirement

Complete 70 semester hours in the major.

## Program Requirements

135 total semester hours required for the bachelor's degree Minimum 3.000 GPA required in all graduate courses

## Physics, BS/PhD

## Program Requirements

Undergraduate students apply to the bachelor's/doctoral program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree. Consult the department for information on this program.

## Physics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete one of the following sequences:
Physics 1 and 2

PHYS 1161
and PHYS 1162 and Lab for PHYS 1161
PHYS 1165 Physics 2
and PHYS 1166 and Lab for PHYS 1165

PHYS 1151 Physics for Engineering 1
and PHYS 1152 and Lab for PHYS 1151
and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

PHYS 1155
and PHYS 1156
and PHYS 1157
Physics for Engineering 2
and Lab for PHYS 1155
and Interactive Learning Seminar for

PHYS 1155

## Modern Physics

PHYS 2303

## Elective Courses

Complete two of the following:
MATH $4606 \quad$ Mathematical and Computational
Methods for Physics

PHYS 2300 to PHYS 5999

## GPA Requirement

2.000 GPA required in the minor

## Psychology

Website (http://www.northeastern.edu/psychology)

## Joanne L. Miller, PhD

Matthews Distinguished University Professor and Chair
125 Nightingale Hall
617.373.3076
617.373 .8714 (fax)

Maribel Pereira, Administrative Secretary, m.pereira@northeastern.edu
Studies in modern psychology focus on mind, brain, and behavior. Based on empirical research with both humans and animals, psychologists investigate and seek explanations for the behavior and mental life of individuals and develop assessment tools and treatment options for addressing clinical problems.

The psychology curriculum explores such topics as how brain function determines behavior; how we see, hear, and learn; what constitutes normal and abnormal personality; the nature of language and cognitive processing; how emotions affect behavior; and how individuals work in groups. Through laboratory practice and experimentation, individual research projects, and small-group seminars, the program provides the opportunity for critical evaluation and in-depth exploration across the diverse topic areas that constitute modern psychology.

Students are eligible for directed study courses, which are individualized research experiences under the supervision of a faculty member. The department also offers honors sections of various courses. Co-op placements are varied and include both community (often mental health) and laboratory settings, depending on a student's interests.

A solid scientific background in psychology helps prepare students for academic careers in teaching and research, as well as professional careers in business, public and social services, education, mental health, law, and medicine. It also provides a strong foundation for graduate study in all areas of psychology, including clinical programs.

Note: A double major in psychology and behavioral neuroscience is not offered due to the similarity in the course curricula of these majors.

## Academic Progression Standards

Students who fail to maintain a minimum grade-point average of 2.000 will be placed on probation. Three consecutive academic terms on probation will result in dismissal from the major.

## Programs

## Bachelor of Science (BS)

- Psychology (p. 561)
- American Sign Language and Psychology (p. 565)
- Computer Science and Cognitive Psychology (p. 566)
- Criminal Justice and Psychology (p. 568)
- Information Science and Cognitive Psychology (p. 569)
- Linguistics and Psychology (p. 572)


## Minor

- Psychology (p. 574)


## Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Psychology Major Requirements

| Introductory Course |  |  |
| :---: | :---: | :---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| Personal/Social Bases of Behavior (Area A) |  |  |
| Complete two of the following: |  | 8 |
| PSYC 3400 | Personality |  |
| PSYC 3402 | Social Psychology |  |
| PSYC 3404 | Developmental Psychology |  |
| PSYC 3406 | Abnormal Psychology |  |
| Biological/Cognitive Bases of Behavior (Area B) |  |  |
| Complete two of the following: |  | 8 |
| PSYC 3450 or PSYC 3451 | Learning and Motivation <br> Learning Principles and Behavior Analysis |  |
| PSYC 3452 | Sensation and Perception |  |
| PSYC 3458 | Biological Psychology |  |
| PSYC 3464 | Psychology of Language |  |
| PSYC 3466 | Cognition |  |
| Statistics |  |  |
| PSYC 2320 | Statistics in Psychological Research | 4 |

## Psychology Seminar

Complete one of the following:

| PSYC 4650 | Seminar in Clinical Case Study |
| :--- | :--- |
| PSYC 4652 | Seminar in Ethics in Psychology |


| PSYC 4654 | Seminar in Behavioral Modification |
| :---: | :---: |
| PSYC 4656 | Seminar in Biological Psychology |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4662 | Seminar in Personality |
| PSYC 4664 | Seminar in Social Psychology |
| PSYC 4666 | Seminar in Clinical Psychology |
| PSYC 4668 | Seminar in Sensation and Perception |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| Lab Requirement |  |
| Complete two psych course and one psy thesis: | logy lab courses or one psychology lab ology directed study research or honors |
| Lab |  |
| PSYC 4600 | Laboratory in Research Design |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4614 | Laboratory in Social Psychology |
| PSYC 4616 | Laboratory in Personality |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional Development |
| Directed Study Research |  |
| PSYC 4991 or PSYC 4971 | Directed Study Research Junior/Senior Honors Project 2 |

## Psychology Required Electives

Complete five PSYC courses.20

## Mathematics Requirement

Complete one of the following courses:

| CS 1800 | Discrete Structures |
| :--- | :--- |
| MATH 1213 | Interactive Mathematics |
| MATH 1215 | Mathematical Thinking |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |
| MATH 1242 | Calculus 2 |
| MATH 1251 | Calculus and Differential Equations for |
|  | Biology 1 |
| MATH 1252 | Calculus and Differential Equations for <br>  <br> MATH 1340 |
| MATH 1341 | Calculus 1 for Science and Engineering |
| MATH 1342 | Calculus 2 for Science and Engineering |

## Interdisciplinary Cluster

Complete three of the following courses. Choose from one

## Educational Psychology

| AFAM 3485 | Education Issues in the Black <br> Community |
| :--- | :--- |
| LING 3444 | Linguistics in Education |
| SLPA 4501 | Language Disorders in Children |


| SOCL 1290 | Juvenile Delinquency |
| :--- | :--- |
| EDUC 4504 | Learning and Accomplished Practice |
| EDUC 4530 | Race and Urban Education |
| EDUC 4552 | Inquiry in the Humanities and Social <br> Sciences at the Elementary Level |
| EDUC 4570 | Inclusion, Equity, and Diversity |

Society and Psychology

| ANTH 1101 | Peoples and Cultures |
| :--- | :--- |
| ANTH 2302 | Gender and Sexuality: A Cross-Cultural <br> Perspective |
| ANTH 2315 | Religion and Modernity |
| LING 3412 | Language and Culture |
| SOCL 1235 | Social Psychology |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1241 | Sociology of Violence |
| SOCL 1255 | Sociology of the Family |
| SOCL 1256 | Violence in the Family |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1285 | Deviant Behavior and Social Control |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |

Forensic Psychology

| CHEM 1107 | Introduction to Forensic Chemistry |
| :--- | :--- |
| CRIM 2200 | Criminology |
| CRIM 4010 | Gender, Crime, and Justice |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4710 | Law and Psychology |
| CRIM 4660 | Communities and Crime |
| CRIM 4310 | Correctional Intervention |


| Cross-Cultural Psychology |  |
| :---: | :--- |
| ANTH 1101 | Peoples and Cultures |
| LING 3412 | Language and Culture |
| LING 3442 | Sociolinguistics |

## Expressive Therapy

MUSC 1118 Music Therapy 1
THTR 1130 Introduction to Acting
Counseling and Applied Psychology
CAEP $3480 \quad$ Counseling Theories and Practice
CAEP 3485 Mental Health and Counseling
CAEP 4502 Health Counseling
HUSV $2300 \quad$ Counseling in Human Services
HUSV $3520 \quad$ Child Intervention and Treatment
Artificial Intelligence and Information Science

| CS 1500 | Algorithms and Data Structures for <br> Engineering |
| :---: | :--- |
| CS 3800 | Theory of Computation |
| CS 4100 | Artificial Intelligence |
| CS 4120 | Natural Language Processing |
| CS 4800 | Algorithms and Data |
| IS 2000 | Principles of Information Science |
| IS 4300 | Human Computer Interaction |
| anguage |  |
| DEAF 2700 | ASL Linguistics |
| LING 2350 | Linguistic Analysis |


| LING 3450 | Syntax |
| :--- | :--- |
| LING 3452 | Semantics |
| LING 3456 | Language and Gender |
| LING 3422 | Phonetics and Phonology |
| LING 3434 | Bilingualism |
| PHIL 1215 | Symbolic Logic |
| PHIL 4540 | Philosophy of Language |
| LING 3412 | Language and Culture |
| LING 3442 | Sociolinguistics |
| SLPA 1202 | Neurological Bases of Communication |
| SLPA 1205 | Speech and Hearing Science |
| SLPA 4501 | Language Disorders in Children |


| Human Factors <br> IS 2000 | Principles of Information Science |
| :---: | :--- |
| IS 3500 | Information System Design and <br> Development |
| IS 4200 | Information Retrieval |
| IS 4300 | Human Computer Interaction |
| IS 4800 | Empirical Research Methods |

## Child and Adolescent Abnormal Psychology

| SOCL 1256 | Violence in the Family |
| :--- | :--- |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |
| SLPA 4501 | Language Disorders in Children |
| SLPA 5150 | Early Intervention: Assessment and <br> Intervention |
| SOCL 3437 | Children and Youth in Contemporary <br> Society |

Human Resource Management and Business

| ORGB 3201 | Organizational Behavior |
| :--- | :--- |
| INTB 3310 | Cultural Aspects of International <br> Business |
| MISM 2301 | Management Information Systems |
| MKTG 2209 | Introduction to Marketing |
| PHIL 1170 | Business Ethics |
| SOCL 1272 | Social Roles in the Business World |
| SOCL 1273 | Sociology of Gender and Work |
| SOCL 1280 | The Twenty-First-Century Workplace |

## Philosophy of Science and Psychology

| PHIL 1105 | Science and Pseudoscience |
| :--- | :--- |
| PHIL 1114 | Reason, Risk, and Evidence |
| PHIL 1115 | Introduction to Logic |
| PHIL 1215 | Symbolic Logic |
| PHIL 4510 | Philosophy of Science |
| PHIL 4530 | Philosophy of Psychology |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4540 | Philosophy of Language |
| Ethics |  |
| PHIL 1130 | Ethics: East and West |
| PHIL 1165 | Moral and Social Problems in |
| PHIL 1170 | Healthcare |
| PHIL 1180 | Enviness Ethics |
| PHIL 2340 | Philosophy of Human Nature |


| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3465 | Advanced Medical Ethics |
| SOCL 1240 | Sociology of Prejudice and Violence |
| Biological and Chemical Sciences |  |
| BIOL 1141 | Microbes and Society |
| ENVR 1445 | Environment and Humankind |
| BIOL 1147 | The Human Organism |
| BIOL 1149 | Biology of Human Reproduction |
| EEMB 1450 | Introduction to Marine Biology |
| CHEM 1101 | General Chemistry for Health Sciences |
| and CHEM 1102 | and Lab for CHEM 1101 |
| CHEM 1104 | Organic Chemistry for Health Sciences |
| and CHEM 1105 | and Lab for CHEM 1104 |
| CHEM 1211 | General Chemistry 1 |
| and CHEM 1212 | and Lab for CHEM 1211 |
| CHEM 1214 | General Chemistry 2 |
| and CHEM 1215 | and Lab for CHEM 1214 |
| BIOL 1111 | General Biology 1 |
| and BIOL 1112 | and Lab for BIOL 1111 |
| BIOL 1113 | General Biology 2 |
| and BIOL 1114 | and Lab for BIOL 1113 |
| BIOL 1117 | Integrated Anatomy and Physiology 1 |
| and BIOL 1118 | and Lab for BIOL 1117 |
| BIOL 1119 | Integrated Anatomy and Physiology 2 |
| and BIOL 1120 | and Lab for BIOL 1119 |
| BIOL 3403 | Animal Behavior |
| BIOL 3405 | Neurobiology |
| EEMB 2302 | Ecology |
| or EEMB 5568 | Wildlife Biology |
| EEMB 5548 | Sociobiology |
| EEMB 5564 | Ornithology |
| or EEMB 5566 | Mammalogy |
| BIOL 5585 | Evolution |
| CHEM 1107 | Introduction to Forensic Chemistry |
| CHEM 2321 | Analytical Chemistry |
| ENVR 1121 | Marine Resources |
| EEMB 1123 | Biological Oceanography |

Physical Sciences and Mathematics
In addition to the following courses, any math skill course
may be used with advisor approval:

| ENVR 1121 | Marine Resources |
| :--- | :--- |
| EEMB 1122 | Physical Oceanography |
| EEMB 1123 | Biological Oceanography |
| ENVR 1120 | Oceans and Coasts |
| ENVR 1112 | Environmental Geology |
| ENVR 1104 | Natural Disasters and Catastrophes |
| ENVR 1101 | Environmental Science |
| ENVR 1110 | Global Climate Change |
| ENVR 1200 | Dynamic Earth |
| ENVR 1140 | Physical Geography |
| ENVR 3100 | Oceanography |
| ENVR 3418 | Geophysics |
| MATH 2210 | Foundations of Mathematics |
| MATH 2310 | Discrete Mathematics |
| MATH 4581 | Statistics and Stochastic Processes |

or any PHYS course
Health and Wellness

| NRSG 1205 | Wellness |
| :---: | :---: |
| HSCI 1105 | Nutrition |
| HSCI 1106 | Contemporary Issues in Nutrition |
| HSCI 5230 | Clinical Nutrition Applications in Health and Disease |
| BIOL 1117 and BIOL 1119 | Integrated Anatomy and Physiology 1 and Integrated Anatomy and Physiology 2 |
| BIOL 1141 | Microbes and Society |
| BIOL 1143 | Biology and Society |
| ENVR 1445 | Environment and Humankind |
| BIOL 1147 | The Human Organism |
| BIOL 1149 | Biology of Human Reproduction |
| PT 1880 | Introduction to Sports Medicine |
| COMM 3201 | Health Communication |
| PHIL 1165 | Moral and Social Problems in Healthcare |
| PHIL 1185 | The Ethics of Food |
| PHIL 1180 | Environmental Ethics |
| SOCL 1120 | Society and Health |
| SOCL 1200 | Sociology of Alcoholism |
| SOCL 1225 | Aging in Society |
| SOCL 1295 | Drugs and Society |
| Communication, Culture, and Society |  |
| COMM 2304 | Communication and Gender |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |
| COMM 1131 | Sex, Relationships, and Communication |
| COMM 4131 | Sex and Interpersonal Communication |
| COMM 1255 | Communication in a Digital Age |
| COMM 3304 | Communication and Inclusion |
| COMM 2105 | Social Networks |
| COMM 2551 | Free Speech in Cyberspace |
| COMM 3230 | Interpersonal Communication |
| COMM 3534 | Group Communication |
| COMM 3610 | Communication, Politics, and Social Change |
| COMM 4535 | Nonverbal Social Interaction |
| COMM 4605 | Youth and Communication Technology |
| COMM 4625 | Online Communities |
| LING 3412 | Language and Culture |
| LING 3442 | Sociolinguistics |
| LING 3456 | Language and Gender |

## Psychology Experiential Education Requirement

See the experiential education advisor in psychology for other options.
Complete one of the following: 0-8
COOP 3945 Co-op Work Experience
PSYC $4652 \quad$ Seminar in Ethics in Psychology
PSYC 4991 Directed Study Research
PSYC 4994 Internship in Psychology

EDUC 4850
Teaching Practicum

## BS in Psychology Major Credit Requirements

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 "Interdisciplinary Cluster" section has been completed.

## Program Requirement

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PSYC 1101 | 4 PSYC area A elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PSYC undergraduat elective | 4 |  |  |
| Math requirement | 4 PSYC 1214 (or other elective) | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| PSYC 1000 | 1 |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PSYC 2320 | 4 <br> PSYC area A <br> elective | 4 Vacation | 0 Co-op | 0 |
| PSYC area B <br> elective | 4 <br> PSYC area B <br> elective | 4 |  |  |
| Elective | 4 <br> PSYC <br> interdisciplinary <br> cluster | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PSYC <br> undergraduate <br> elective | 4 Elective | 4 Co-op | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PSYC lab <br> elective | 4 PSYC <br> undergraduate <br> elective | 4 Co-op | 0 |


|  | PSYC <br> interdisciplinary <br> cluster |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Elective |  | 4 |  |  |
|  | 0 |  |  | 16 | 8 | 0 |
| Year 5 |  |  |  |  |  |  |
| Fall | Hours | Spring |  |  |  |  |
| Co-op | 0 | PSYC <br> seminar <br> elective |  | 4 |  |  |
|  |  | PSYC <br> undergra elective |  | 4 |  |  |
|  |  |  |  | 4 |  |  |
|  |  | Elective |  | 4 |  |  |
|  | 0 |  |  | 16 |  |  |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PSYC 1101 | 4 PSYC area A <br> elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 <br> PSYC 1214 <br> (or other <br> elective) | 4 |  |  |
| Math <br> requirement | 4 PSYC <br> undergraduate <br> elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |
| PSYC 1000 | 1 | 16 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PSYC 2320 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PSYC area B <br> elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESC 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| PSYC area A elective | 4 Co-op | 0 Co-op | 0 PSYC <br> undergraduate elective | ${ }^{4}$ |
| PSYC area B elective | 4 |  | Elective | 4 |
| ENGW 3315 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |



Total Hours: 130

## American Sign Language and Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Psychology Combined-Major

 Requirements| Code | Title | Hours |
| :--- | :--- | ---: |
| American Sign Language |  |  |
| AMSL 1101 | Elementary ASL 1 | 4 |
| AMSL 1102 | Elementary ASL 2 | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |
| AMSL 2102 | Intermediate ASL 2 | 4 |
| AMSL 3101 | Advanced ASL 1 | 4 |
| Social and Cultural World |  |  |
| DEAF 1500 | Deaf People in Society | 4 |
| DEAF 2500 | Deaf History and Culture | 4 |
| Linguistics |  |  |


| LING 1150 | Introduction to Language and <br> Linguistics | 4 |
| :--- | :--- | :---: |
| DEAF 2700 | ASL Linguistics | 4 |
| Performance Interpreting | 2 |  |
| INTP 3500 | The Interpreting Profession |  |
| Interpreting |  | 4 |
| INTP 3510 | Interpreting Inquiry Texts | 4 |
| Psychology |  | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |

Psychology Lab or Directed Study
Complete one of the following:

| PSYC 4600 | Laboratory in Research Design |
| :--- | :--- |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4614 | Laboratory in Social Psychology |
| PSYC 4616 | Laboratory in Personality |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional <br> PSYC 4991Directed Study Research <br> Personal/Social Bases of Behavior (Area A) <br> Complete two of the following: |


| Complete two of the following: |  |
| :--- | :--- |
| PSYC 3400 | Personality |
| PSYC 3402 | Social Psychology |
| PSYC 3404 | Developmental Psychology |
| PSYC 3406 | Abnormal Psychology |

Biological/Cognitive Bases of Behavior (Area B)
Complete one of the following: 4

| PSYC 3450 | Learning and Motivation |
| :--- | :--- |
| PSYC 3451 | Learning Principles and Behavior |
|  | Analysis |

PSYC 3452 Sensation and Perception
PSYC 3458 Biological Psychology
Psychology Elective
Complete one of the following: 4

| PSYC 2356 | Nonverbal Communication |
| :--- | :--- |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4526 | Categorization and Reasoning |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| Integrative Course Work |  |
| INTP 4940 | Interpreting Research Practicum |
| PSYC 3464 | Psychology of Language |

## Combined-Major GPA Requirement

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

## Combined-Major Credit Requirement

Complete 82 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study <br> Four Years, No Co-op

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 1101 | 4 AMSL 1102 | 4 Vacation | 0 Vacation | 0 |
| DEAF 1500 | 4 PSYC 3464 | 4 |  |  |
| PSYC 1101 | 4 MATH 1215 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 PSYC 3466 | 4 |  |  |
| DEAF 2500 | 4 Psych Area <br> A elective | 4 |  |  |
| PSYC 2320 | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| AMSL 3101 | 4 AMSL 3102 | 4 Vacation | 0 Vacation | 0 |
| INTP 3500 | 2 DEAF 2700 | 4 |  |  |
| INTP 3510 | 4 Psych Area A or Area B elective | 4 |  |  |
| Psych Area A or Area B elective | 4 Psych elective or psych laboratory | 4 |  |  |
| ENGW 3315 | 4 |  |  |  |
|  | 18 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTP 4940 | 4 <br>  <br>  <br> elective <br> or psych <br> laboratory | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 130

## Computer Science and Cognitive Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours

Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| A grade of C - or higher is required: |  |  |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| CS 2500 and CS 2501 | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4100 | Artificial Intelligence (Integrative course) | 4 |
| CS 4500 | Software Development (Integrative course) | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 4300 | Human Computer Interaction (Integrative course) | 4 |


| Computer Science Senior Seminar |  |  |
| :--- | :--- | :--- |
| CS 4000 | Senior Seminar | 1 |
| or THTR 1170 | The Eloquent Presenter |  |

## Computer Science Elective Courses

With advisor approval, directed study, project study, and appropriate graduate-level courses may also be taken as computer science electives.
Complete two courses from the following ranges: 8
CS 2600 to CS 7999 but not CS 5010
IS 2000 to IS 7999 but not IS 4900

## Psychology Courses

Code Title Hours

## Required Courses

| PSYC 1101 | Foundations of Psychology | 4 |
| :--- | :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3464 | Psychology of Language | 4 |
| PSYC 3466 | Cognition | 4 |

Advanced Psychology
or PSYC $3458 \quad$ Biological Psychology

| Laboratory in Psychology |
| :--- |
| Complete one of the following: |
| PSYC 4610 |
| PSYC 4612 |
| PSYC 4622 |$\quad$ Laboratory in Psycholinguistics $\quad 4$

Psychology Electives
Note: Courses satisfying the categories above cannot be reused.

Complete two of the following: 8

| PSYC 3402 | Social Psychology |
| :--- | :--- |
| PSYC 3450 | Learning and Motivation |
| PSYC 3451 | Learning Principles and Behavior <br>  <br> Analysis |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 4512 | Neuropsychology |
| PSYC 4520 | Language and the Brain |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4526 | Categorization and Reasoning |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4652 | Seminar in Ethics in Psychology |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4668 | Seminar in Sensation and Perception |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| With prior approval, directed study research and Honors |  |
| Project courses can also be counted: |  |
| PSYC 4970 | Junior/Senior Honors Prope |


| PSYC 4970 | Junior/Senior Honors Project 1 |
| :--- | :--- |
| PSYC 4971 | Junior/Senior Honors Project 2 |
| PSYC 4991 | Directed Study Research |


| Additional Requirement |  |  |
| :--- | :--- | ---: |
| Code <br> Calculus | Hours |  |
| A grade of C- or higher is required: |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |


| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| :---: | :---: | :---: |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital Rights |  |
| Computer Science English Requirement |  |  |
| Code | Title | Hours |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines |  |  |
| ENGW 3302 | Advanced Writing in the Technical Professions | 4 |
| or ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |

## Required General Electives

Code Title Hours

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 CS 2800 | 4 |  |  |
| PSYC 1101 | 4 CS 2801 | 1 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
| CS 1200 | 1 PSYC 3466 | 4 |  | 0 |
| CS 1801 | 0 |  | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| MATH 1341 | 4 CS 4800 | 4 |  |  |
| PSYC 2320 | 4 PSYC 3464 | 4 |  |  |
| Elective | 4 PSYC 3452 | 4 |  |  |


| CS 1210 | 1 |  | 0 |
| ---: | ---: | ---: | ---: |


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | IS 4300 | 4 Elective | 4 Co-op | 0 |
|  |  | PSYC <br> undergraduat elective | 4 Elective | 4 |  |
|  |  | ENGW 3302 | 4 |  |  |
|  |  | CS undergraduat elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |


| Year 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | CS 4100 | 4 | Elective | 4 | Co-op | 0 |
|  |  | CS undergraduat elective | 4 | Elective | 4 |  |  |
|  |  | Psych lab elective | 4 |  |  |  |  |
|  |  | PSYC <br> undergraduat elective | 4 |  |  |  |  |
|  | 0 |  | 16 |  | 8 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 CS 4500 | 4 |
|  | CS 4000 | 1 |
|  | SOCL 4528 | 4 |
|  | Psych |  |
| seminar | 4 |  |
|  | Elective | 4 |
|  | 0 | 17 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 1800 | 4 CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 CS 2511 | 1 |  |  |
| CS 2501 | 1 CS 2800 | 4 |  |  |
| PSYC 1101 | 4 CS 2801 | 1 |  |  |
| ENGW 1111 | 4 PSYC 3466 | 4 |  |  |
| CS 1200 | 1 Elective | 4 |  |  |
| CS 1801 | 0 |  |  |  |
|  | 18 | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 3500 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| MATH 1341 | 4 |  |  |  |
| PSYC 2320 | 4 |  |  |  |
| Elective | 4 |  |  |  |


| CS 1210 | 1 |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
|  | 17 | 0 | 0 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| PSYC 3464 | 4 |  |  |  |
| PSYC 3452 | 4 | 0 | 0 | 8 |


| Year 4 |  |  | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| CS 4100 | 4 CS 4500 | 4 |
| CS <br> undergraduat | 4 CS 4000 | 1 |
| elective | 4 SOCL 4528 | 4 |
| Psych lab <br> elective | 4 Psych |  |
| PSYC <br> undergraduat <br> elective | Elective | 4 |

Total Hours: 134

## Criminal Justice and Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Criminal Justice Requirements

Code Title Hours

Criminal Justice Core Requirements

| CRIM 1100 | Introduction to Criminal Justice | 4 |
| :--- | :--- | :--- |
| CRIM 2100 | Criminal Due Process | 4 |


| CRIM 2200 | Criminology | 4 |
| :--- | :--- | :--- |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| Thematic Elective |  | 4 |
| Complete one of the following: |  |  |


| CRIM 1300 | The Death Penalty |
| :--- | :--- |
| CRIM 1400 | Human Trafficking |
| CRIM 1500 | Corruption, Integrity, and Accountability |
| CRIM 1600 | Crimes against Humanity |
| CRIM 1700 | Crime, Media, and Politics |

## Survey Elective

| Complete one of the following: |  |
| :--- | :--- |
| CRIM 3010 | Criminal Violence |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |


| System-Wide Elective |  |  |
| :---: | :---: | :---: |
| Complete one of the following: |  | 4 |
| CRIM 4010 | Gender, Crime, and Justice |  |
| CRIM 4020 | Race, Crime, and Justice |  |
| CRIM 4030 | Criminal Justice Organization and Management |  |
| CRIM 4040 | Crime Prevention |  |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |
| Mathematics |  |  |
| Complete one | following: | 4 |


| MATH 1215 | Mathematical Thinking |
| :--- | :--- |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |

Electives
Complete three courses from the following range: 8

## CRIM 4000 to CRIM 5999

## Psychology Major Requirements

| Code <br> Introductory Course | Title | Hours |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology |  |
| Statistics |  | 4 |
| PSYC 2320 | Statistics in Psychological |  |
| Pesesearch | 4 |  |
| Complete two of the following: | 8 |  |
| PSYC 3400 | Personality |  |
| PSYC 3402 | Social Psychology |  |
| PSYC 3404 | Developmental Psychology |  |
| PSYC 3406 | Abnormal Psychology |  |
| Biological/Cognitive Bases of Behavior |  |  |
| Complete two of the following: | 8 |  |

PSYC $3450 \quad$ Learning and Motivation
or PSYC 3451 Learning Principles and Behavior Analysis

| PSYC 3452 | Sensation and Perception |
| :--- | :--- |
| PSYC 3458 | Biological Psychology |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

## Research Experience

Complete one of the following:

| PSYC 4991 | Directed Study Research |
| :--- | :--- |
| PSYC 4600 | Laboratory in Research Design |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4614 | Laboratory in Social Psychology |
| PSYC 4616 | Laboratory in Personality |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional |
|  | Development |

## Psychology Seminar

Complete one of the following:

| PSYC 4650 | Seminar in Clinical Case Study |
| :--- | :--- |
| PSYC 4652 | Seminar in Ethics in Psychology |
| PSYC 4654 | Seminar in Behavioral Modification |
| PSYC 4656 | Seminar in Biological Psychology |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4662 | Seminar in Personality |
| PSYC 4664 | Seminar in Social Psychology |
| PSYC 4666 | Seminar in Clinical Psychology |
| PSYC 4668 | Seminar in Sensation and Perception |
| PSYC 4674 | Seminar in Cognitive Neuroscience |

## Electives

Complete two PSYC courses. ..... 8

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| CRIM 3040 | Psychology of Crime | 4 |
| or CRIM 4710 | Law and Psychology |  |

## Criminal Justice and Psychology Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## Information Science and Cognitive Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Computer and Information Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses
A grade of C - or higher is required:

| CS 1800 <br> and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 <br> and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4100 | Artificial Intelligence (integrative course) | 4 |
| CS 4800 | Algorithms and Data | 4 |


| Information Science | Required Courses | 4 |
| :--- | :--- | ---: |
| IS 2000 | Principles of Information Science | 4 |
| IS 3500 | Information System Design and <br> Development | 4 |
| IS 4300 | Human Computer Interaction <br> (integrative course) | 4 |
| IS 4800 | Empirical Research Methods | 5 |
| IS 4900 | Information Science Senior Project <br> (integrative course) |  |

## Psychology Courses

## Code Title

## Hours

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3464 | Psychology of Language | 4 |
| PSYC 3466 | Cognition | 4 |

Advanced Psychology
PSYC $3452 \quad$ Sensation and Perception
or PSYC 3458 Biological Psychology

| Laboratory in Psychology |
| :--- |
| Complete one of the following: |


| PSYC 4610 | Laboratory in Psycholinguistics |
| :--- | :--- |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4622 | Laboratory in Sensation and Perception |

## Seminar in Psychology

| Complete one of the following: |
| :--- |
| PSYC 4658 |
| PSYC 4660 |$\quad$ Seminar in Psycholinguistics 4

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Additional Requirement

Code Title Hours

## Calculus

A grade of C - or higher is required:
MATH $1341 \quad$ Calculus 1 for Science and Engineering 4

## Computing and Social Issues

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| PHIL 1145 | Technology and Human Values |  |
| SOCL 1280 | The Twenty-First-Century Workplace |  |
| SOCL 3485 | Environment, Technology, and Society |  |
| SOCL 4528 | Computers and Society |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br> Technopolitics |  |

IA $5240 \quad$ Cyberlaw: Privacy, Ethics, and Digital Rights

Computer Science English Requirement

| Code <br> College Writing | Title | Hours |
| :--- | :--- | ---: |
| ENGW 1111 | First-Year Writing | 4 |
| Advanced Writing in the Disciplines | 4 |  |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions <br> or ENGW 3315 | Interdisciplinary Advanced Writing in the <br> Disciplines |

## Required General Electives

## Code Title

Complete seven general electives.

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Understanding Societies and Institutions
- Analyzing and Using Data
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 CS 2510 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 IS 3500 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3302 | 4 Elective | 4 |  |


| PSYC <br> undergraduate <br> elective | 4 |  |  |
| :--- | ---: | :--- | :--- |
| Elective | 4 | 8 | 0 |
| 0 | 16 |  | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CS 4100 | 4 Elective | 4 Co-op | 0 |
|  | IS 4800 | 4 Elective | 4 |  |
|  | Psych lab <br> elective | 4 |  |  |
| PSYC <br> undergraduat <br> elective | 4 |  | 0 |  |
| 0 | 16 | 8 |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 IS 4900 | 5 |
|  | SOCL 4528 | 4 |
|  | Psych | 4 |
|  | seminar |  |
|  | Elective | 4 |
|  | 0 | 17 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 | 4 | CS 2510 | 4 Vacation | 0 Vacation | 0 |
| CS 2500 | 4 | CS 2511 | 1 |  |  |
| CS 2501 | 1 | CS 2800 | 4 |  |  |
| CS 1200 | 1 | CS 2801 | 1 |  |  |
| PSYC 1101 | 4 | Elective | 4 |  |  |
| ENGW 1111 | 4 | PSYC 3466 | 4 |  |  |
| CS 1801 | 0 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 2000 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| CS 3500 | 4 |  |  |  |
| MATH 1341 | 4 |  |  |  |
| PSYC 2320 | 4 |  |  | 0 |
| CS 1210 | 1 |  |  | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| IS 4300 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CS 4800 | 4 |  | Elective | 4 |
| PSYC 3464 | 4 |  |  |  |
| PSYC 3452 | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |



Total Hours: 134

## Linguistics and Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Linguistics Language Requirement

Complete two courses in the same language with a grade of C or higher.
Proficiency at elementary level 2 or higher is required.

## Linguistics Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| Intermediate/Advanced Linguistics |  |  |
| LING 2350 | Linguistic Analysis | 4 |
| LING 3412 | Language and Culture | 4 |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3450 | Syntax | 4 |
| Linguistics Electives |  |  |
| Complete thre | following: | 12 |
| DEAF 2700 | ASL Linguistics |  |
| LING 3402 | African-American English |  |
| LING 3424 | Morphology |  |


| LING 3428 | African Languages |
| :--- | :--- |
| LING 3430 | Applied Linguistics |
| LING 3432 | Romance Linguistics |
| LING 3434 | Bilingualism |
| LING 3436 | Structure of Spanish |
| LING 3438 | Structure of French |
| LING 3442 | Sociolinguistics |
| LING 3444 | Linguistics in Education |
| LING 3448 | Issues in Linguistics |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |
| LING 3460 | Historical Linguistics |
| LING 4654 | Seminar in Linguistics |
| LING 4891 | Research Seminar in Linguistics |
| or LING 4970 | Junior/Senior Honors Project 1 |
| or LING 4971 | Junior/Senior Honors Project 2 |
| or LING 4991 | Directed Study Research |
| or LING 4993 | Independent Study |
| PHIL 1215 | Symbolic Logic |
| PHIL 4540 | Philosophy of Language |

## Psychology Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory and Intermediate Psychology |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| Advanced Psychology |  |  |
| PSYC 3402 | Social Psychology | 4 |
| PSYC 3466 | Cognition | 4 |

Psychology Lab
Complete one of the laboratory courses or, with prior approval, a directed study or Honors Project on a topic related to psycholinguistics or cognition:

| PSYC 4610 | Laboratory in Psycholinguistics |
| :--- | :--- |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4970 | Junior/Senior Honors Project 1 |
| PSYC 4971 | Junior/Senior Honors Project 2 |
| PSYC 4991 | Directed Study Research |

## Psychology Seminar

Complete one of the following: 4

| PSYC 4658 | Seminar in Psycholinguistics |
| :--- | :--- |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |

## Psychology Electives

A directed study on a topic related to psycholinguistics or cognition may be taken with prior approval.
Complete two of the following:

| PSYC 2356 | Nonverbal Communication |
| :--- | :--- |
| PSYC 3404 | Developmental Psychology |
| PSYC 3450 | Learning and Motivation |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |


| PSYC 4520 | Language and the Brain |
| :--- | :--- |
| PSYC 4522 | Psychology of Reading |
| PSYC 4524 | Cognitive Development |
| PSYC 4526 | Categorization and Reasoning |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4658 | Seminar in Psycholinguistics |
| PSYC 4660 | Seminar in Cognition |
| PSYC 4674 | Seminar in Cognitive Neuroscience |
| PSYC 4991 | Directed Study Research |

## Linguistics/Psychology Combined-Major Requirements

| Code | Title | Hours |
| :--- | :--- | :---: |
| Experiential Learning |  |  |
| Complete a directed study, two junior/senior honors project <br> courses, or a study abroad (not a Dialogue): |  |  |
| LING 4991 | Directed Study Research | 4 |
| LING 4996 | Experiential Education Directed Study | 4 |
| LING 4970 | Junior/Senior Honors Project 1 <br> and LING 4971 | and Junior/Senior Honors Project 2 |
| PSYC 4970  <br> and PSYC 4971 and Junior/Senior Honors Project 2 | 8 |  |
| PSYC 4991 | Directed Study Research | 8 |
| Integrative Course | Psychology of Language | 4 |
| PSYC 3464 |  | 4 |

## Linguistics and Psychology Combined-Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 LING 2350 | 4 | Vacation | 0 Vacation |$\quad 0$


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| LING 3412 | 4 | LING 3422 | 4 Vacation | 0 Co-op | 0 |
| PSYC 2320 |  | Linguistics elective | 4 |  |  |
| PSYC 3466 | 4 | PSYC 3402 | 4 |  |  |
| Foreign language course |  | Psychology elective | 4 |  |  |
|  |  | EESC 2000 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 LING 3450 | 4 Elective | 4 Co-op | 0 |
|  | Linguistics <br> or <br> psychology <br> elective | 4 Elective | 4 |  |
| Psychology <br> laboratory | 4 |  |  |  |
|  | ENGW 3315 | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Linguistics elective | 4 Elective | 4 Co-op | 0 |
|  | Linguistics or psychology elective | 4 Elective | 4 |  |
|  | Psychology seminar | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | 0 Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 |  |  |

Total Hours: 129

## Four Years, no Co-op

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| LING 1150 | 4 LING 2350 | 4 Vacation | 0 Vacation | 0 |
| PSYC 1101 | 4 PSYC 3464 | 4 |  |  |
| ENGW 1111 | 4 Foreign <br> language <br> course | 4 |  |  |
| MATH 1215 | 4 Elective | 4 | 0 | 0 |
|  | 16 | 16 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| LING 3412 | 4 LING 3422 | 4 Vacation | 0 Vacation | 0 |
| PSYC 2320 | 4 PSYC 3402 | 4 |  |  |
| PSYC 3466 | 4 Linguistics elective | 4 |  |  |
| Foreign language course | 4 Psychology elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 <br> Linguistics <br> elective | 4 LING 3450 |
| :--- | :---: | :---: | :---: | :---: |$\quad$| Hours |
| :---: |

Total Hours: 128

## Psychology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: A maximum of two courses (or 8 semester hours) of transfer credit may count toward the minor. This minor is not available to students majoring in behavioral neuroscience or in any combined major that involves psychology. Courses taken pass/fail and receiving an S grade may not be used toward the minor.

## Required Course

| PSYC 1101 Foundations of Psychology <br> Personal/Social Bases of Behavior (Area A)  |
| :--- |
| Transfer courses are not permitted to fulfill the Area A <br> requirement. |
| Complete one of the following: <br> PSYC 3400 <br> PSYC 3402$\quad$ Personality |
| PSYC 3404 |
| PSYC 3406 |

Biological/Cognitive Bases of Behavior (Area B)
Transfer courses are not permitted to fulfill the Area B requirement.
Complete one of the following:

| PSYC 3450 | Learning and Motivation |
| :--- | :--- |
| PSYC 3452 | Sensation and Perception |
| PSYC 3458 | Biological Psychology |
| PSYC 3464 | Psychology of Language |
| PSYC 3466 | Cognition |

## Elective Courses

Complete two PSYC courses.

## GPA Requirement

2.000 GPA required in the minor

## College of Social Sciences and Humanities

Website (http://www.northeastern.edu/cssh)
Uta Poiger, PhD, Dean
Matthew Tobin, MBA, Associate Dean, Administration and Finance Tim Cresswell, PhD, Associate Dean, Faculty
Ellen Cushman, PhD, Director of Civic Sustainability, Diversity, and Inclusion Initiatives
Chris W. Gallagher, PhD, Associate Dean, Teaching, Learning, and Experiential Education
Erika J. Koss, MA, Assistant Dean, Research, Program Development, and Outreach
John F. McDevitt, MPA, Associate Dean, Research, and Graduate Studies Mary C. Mello, MA, Assistant Dean, Undergraduate Academic Affairs

Dean's Office
420 Renaissance Park
617.373.5173
617.373 .2942 (fax)

Melissa Newton, Administrative Assistant, m.newton@northeastern.edu
Office of Student Academic Affairs
180 Renaissance Park
617.373.3980
617.373 .7281 (fax)
csshadvising@northeastern.edu
The College of Social Sciences and Humanities is a leader in the experiential liberal arts. Students deepen their understandings of culture, society, history, politics, language, and more through the integration of focused academic study and a wide range of experiential opportunities. They use familiar methods and new tools to hone their skills in close reading, interpretation, analysis, oral communication, and critical thinking.

By exploring society's most pressing challenges, students may gain a broad understanding of the relationships among peoples and nations; global economics and politics; the diversity of languages, literatures, religions, and cultures; and multiple perspectives in urban affairs, public policy, law, criminal justice, and the ethical dimensions of human behavior.

The college offers a wide variety of undergraduate programs, including sixteen different majors as well as a diverse set of combinedmajor options, concentrations, minors, and five-year bachelor's/ master's degree PlusOne programs. The college also offers students the opportunity to create an independent major in cases where their interests and goals are not met by existing majors. Students in the college take elective classes to complement their chosen area of study and earn either a Bachelor of Arts or a Bachelor of Science degree.

All students in the college integrate experiential learning into their education-many students pursue multiple opportunities. Students may choose to conduct original student research, either independently or with a faculty member; to immerse themselves in communities and cultures either locally or around the world; to enhance their classroom learning through the co-op experience in a variety of fields; or to build more flexibility into their academic path with a Dialogue of Civilizations trip with a faculty member over the summer.

Students may choose a four- or five-year learning plan in all programs. Both plans offer co-op opportunities in an area related to the student's
chosen academic interests. Students are normally eligible to participate in co-op in the second semester of their sophomore year.

Programs in the college offer the flexibility for students to customize their academic experience around their intellectual and professional interests. A support system of department advisors, college advisors, coop coordinators, and peer mentors helps students explore their options and shape their plan.

## Academic Advising

The College of Social Sciences and Humanities has an academic advising system that consists of academic advisors located in the Office of Student Academic Affairs in 180 Renaissance Park and faculty advisors located in the college's departments and program offices. Detailed advising information is available on the college website (http://www.northeastern.edu/cssh). Prelaw advising (http:// www.northeastern.edu/prelaw) and premedical/predental advising (http://www.northeastern.edu/prehealth) are also available.

## Academic Progression Standards

The College of Social Sciences and Humanities adheres to the universitywide 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 Social Sciences and Humanities are required to meet with an academic advisor in the Office of Student Academic Affairs in 180 Renaissance Park to determine their remaining graduation requirements. Some departments also require a meeting with a faculty advisor in their major or program. This should be completed in the junior year to ensure ample time to complete any outstanding requirements.

## College Requirements

All students in the College of Social Sciences and Humanities must successfully complete their major, college and university requirements for their specific degree.

## Interdisciplinary

## Interdisciplinary Major

- Politics, Philosophy, and Economics, BS (p. 575)


## Interdisciplinary Minors

- Food Systems Sustainabilty, Health and Equity, Minor (p. 578)
- Latino/a, Latin American and Caribbean Studies, Minor (p. 579)
- Law and Public Policy, Minor (p. 579)
- Urban Studies, Minor (p. 580)
- Women's, Gender and Sexuality Studies, Minor (p. 581)


## Politics, Philosophy, and Economics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34)

Note: "TBD" stands for "to be determined."
Politics, Philosophy, and Economics Major Requirements
Code Title Hours

Foundation Courses

| PHIL 1160 | Introduction to Economic Justice | 4 |
| :--- | :--- | :--- |
| PHIL 2303 | Social and Political Philosophy | 4 |
| Core Courses |  | 4 |
| POLS 1160 | International Relations | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| Core Elective 1 |  | 4 |
| POLS 1150 |  |  |
| $\quad$ or POLS 1155 | American Government |  |
| Core Elective 2 |  | 4 |

Complete one of the following:

| ECON 2350 | Statistics |
| :--- | :--- |
| POLS 2400 | Quantitative Techniques |
| MATH 2280 | Statistics and Software |

Theoretical Courses
Note: no more than two courses are allowed in any one field.
Complete three of the following:

| PHIL 2325 | Ancient Philosophy and Political <br> Thought |
| :--- | :--- |
| PHIL 2330 | Modern Philosophy |
| PHIL 3435 | Moral Philosophy |
| POLS 3405 | International Political Economy |
| ECON 2315 | Macroeconomic Theory |
| ECON 2316 | Microeconomic Theory |

Racial or Gender Justice
Complete one of the following:

| AFAM 2339 | Analysis of American Racism |
| :--- | :--- |
| AFAM 2345 | The Black Experience in the Caribbean |
| or POLS 2360 | Politics of Poverty |
| AFAM 2367 | Race and Social Identity of Poverty |
| AFAM 2600 | Contemporary Issues: Race, Science, <br> and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| CRIM 4010 | Gender, Crime, and Justice |
| ECON 4916 Microeconomics |  |


| POLS 2380 | Latino Politics in the United States |
| :---: | :---: |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |
| $\text { SOCL } 1260$ or WMNS 1260 | Gender in a Changing Society Gender in a Changing Society |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 4520 | Race, Class, and Gender |
| WMNS 1101 | Sex, Gender, and Popular Culture |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |
| WMNS 2259 | Sex and Gender in the Jewish Experience |
| WMNS 2302 | Gender and Sexuality: A Cross-Cultural Perspective |
| WMNS 2304 | Communication and Gender |
| WMNS 2373 or HIST 2373 | Gender and Sexuality in World History Gender and Sexuality in World History |
| WMNS 2480 or INTL 2480 | Women and World Politics Women and World Politics |
| WMNS 2505 | Digital Feminisms |
| WMNS 2800 or HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy <br> Sexual Orientation and Gender Expression in Practice and Policy |
| WMNS 3100 | Gender, Social Justice, and Transnational Activism |
| WMNS 3304 or COMM 3304 | Communication and Inclusion Communication and Inclusion |
| WMNS 3500 | Sexuality, Gender, and the Law |

## Concentration

Complete one of the following concentrations:

- Environment and Energy Policy (p. )
- International Political Economy (p. )
- Law and Justice (p. )
- Logic and Game Theory (p. )
- Political Philosophy (p. )
- Public and Economic Policy (p. )


## Additional Requirements

Code Title Hours

Experiential Learning Requirement
Complete one co-op, study abroad, qualifying Dialogue of 4
Civilizations, or one of the following:

| ECON 4996 | Experiential Education Directed Study |
| :--- | :--- |
| ECON 4970 | Junior/Senior Honors Project 1 |
| ECON 4971 | Junior/Senior Honors Project 2 |
| POLS 4970 | Junior/Senior Honors Project 1 |
| POLS 4971 | Junior/Senior Honors Project 2 |
| POLS 4942 | Internship in Politics |
| POLS 4948 | Community-Based Research Practicum |
| POLS 4996 | Experiential Education Directed Study |
| PHIL 4996 | Experiential Education Directed Study |
| Capstone |  |

Complete one of the following:

| ECON 4692 | Senior Economics Seminar |
| :--- | :--- |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Required Electives

Code Title Hours

Complete two courses from the course list below or from the 8-12 focus areas listed below:
Course List
ECON 3000 to ECON 5999
PHIL 2000 to PHIL 5999
POLS 2000 to POLS 5999

## Focus Areas

Health Policy and Medical Ethics

| ECON 1230 | Healthcare and Medical Economics |
| :---: | :---: |
| POLS 2385 | U.S. Health and Welfare Policy |
| PHIL 1165 | Moral and Social Problems in Healthcare |
| PHIL 3465 | Advanced Medical Ethics |
| Security |  |
| ECON 1240 | Economics of Crime |
| PHIL 1114 | Reason, Risk, and Evidence |
| PHIL 2302 | Philosophical Problems of War and Peace |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3427 | Civil-Military Relations |
| POLS 4918 | Model NATO |
| Sports and Society |  |
| ECON 3481 | Economics of Sports |
| PHIL 1162 | Ethics and Philosophy through Sport |
| POLS 3496 | International Relations and Sports |
| Technology |  |
| ECON 1293 | European Economic History |
| PHIL 1145 | Technology and Human Values |
| PHIL 4510 | Philosophy of Science |
| POLS 2390 | Science, Technology, and Public Policy |

## Major GPA/Credit Requirement

Complete 76 semester hours in the major with a 3.000 GPA.

## Course Distribution Requirement

Complete at least four courses in each of the following subject areas:
ECON, PHIL, and POLS.

## Program Requirement

128 total semester hours required

4 Concentrations
CONCENTRATION IN ENVIRONMENT AND ENERGY POLICY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Complete two of the following: |  | 8 |
| ECON 3423 <br> or ECON 3425 | Environmental Economics Energy Economics |  |
| PHIL 1180 | Environmental Ethics |  |
| or PHIL 1185 | The Ethics of Food |  |
| or PHIL 3480 | Environmental Philosophy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| Complete one of the following: |  | 4 |
| ECON 3423 | Environmental Economics |  |
| ECON 3425 | Energy Economics |  |
| PHIL 1180 | Environmental Ethics |  |
| PHIL 1185 | The Ethics of Food |  |
| PHIL 3480 | Environmental Philosophy |  |
| POLS 3410 | Nontraditional Security Issues |  |

## $\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL POLITICAL ECONOMY Hours } \\ \text { Code } & \text { Title }\end{array}$

Requirement 1
Complete two of the following:

| ECON 1290 | History of the Global Economy |
| :--- | :--- |
| ECON 1291 | Development Economics |
| ECON 2316 | Microeconomic Theory |
| ECON 3404 | International Food Economics and <br> Policy |
| ECON 4635 | International Economics |
| PHIL 1185 | The Ethics of Food |
| PHIL 1170 | Business Ethics |
| POLS 3406 | International Law |
| POLS 3409 | Global Governance |
| POLS 3487 | Politics of Developing Nations |
| POLS 3457 | Transatlantic Relations |
| PHIL 4545 | Religion and Politics in South Asia |
| Requirement 2 |  |
| Complete one of the following: | 4 |


| ECON 1292 | Economic History of the Middle East |
| :--- | :--- |
| ECON 1293 | European Economic History |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3450 | Government and Politics in Russia <br> Contemporary Government and Politics <br> in Africa |
| POLS 3460 POLS 3465 | Government and Politics in the Middle <br> East |
| POLS 3475 | Government and Politics in Latin <br> America |
| POLS 3480 | Government and Politics in Japan <br> POLS 3485China: Governance and Foreign Policy |
| PHIL 4545 | Religion and Politics in South Asia |

## CONCENTRATION IN LAW AND JUSTICE

| Code | Title |
| :--- | :--- | ---: |
| Complete three of the following, only two of which may be |  |
| POLS courses: |  |$\quad$| Hours |
| ---: | :--- |$\quad 12$

CONCENTRATION IN LOGIC AND GAME THEORY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| PHIL 1115 | Introduction to Logic | 4 |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ECON 1250 | Game Theory in the Social Sciences |  |
| ECON 4681 | Information Economics and Game Theory |  |
| PHIL 2001 | Ethics and Evolutionary Games |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4520 | Philosophy of Logic |  |
| TBD::Concepts |  |  |


| CONCENTRATION IN POLITICAL PHILOSOPHY |  |
| :--- | :--- | :--- |
| Code | Title Hours |

## Politics Courses

Complete two of the following:

| POLS 2326 | Premodern Political Though |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |

POLS 2330 American Political Thought
POLS 2332 Contemporary Political Thought
Philosophy Course
Complete one of the following: 4

| PHIL 2301 | Philosophical Problems of Law and <br> Justice |
| :--- | :--- |
| PHIL 2302 | Philosophical Problems of War and <br> Peace |
| PHIL 3435 | Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 5001 | Global Justice |

## CONCENTRATION IN PUBLIC AND ECONOMIC POLICY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Course |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Elective Courses |  | 8 |
| Complete two of the following: |  |  |


| ECON 1240 | Economics of Crime |
| :--- | :--- |
| ECON 1270 | Economic Status of Ethnic Minorities |
| ECON 1281 | Economics of the Creative Industries |
| ECON 3410 | Labor Economics |
| ECON 3414 | Economics of Human Capital |
| ECON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3422 | Economics of Transportation |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4680 | Competition Policy and Regulation |
| PHIL 1160 | Introduction to Economic Justice |
| PHIL 5001 | Global Justice |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2360 | Politics of Poverty |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3410 | Nontraditional Security Issues |
| POLS 2334 | Bureaucracy and Government  <br> Organizations  <br> POLS 2335 Budgeting and Taxation <br> POLS 2350 State and Local Politics <br> POLS 2357 Growth and Decline of Cities and <br> POLS 2385 Suburbs <br> POLS 3315 Interealth and Welfare Policy <br> POLS 3402 Survey Research and Polling <br> POLS 3412 Homeland Security Policy and Politics <br> POLS 3425 U.S. Foreign Policy <br> POLS 4948 Community-Based Research Practicum |

## Food Systems Sustainability, Health, and Equity, Minor

The minor in food systems sustainability, health, and equity is an interdisciplinary exploration of the contemporary food system, with particular attention to how the system evolved; its diverse societal, health, and environmental impacts; and ideas for making the food system more sustainable, healthy, and equitable for all.

For more information, contact the program director,
Professor Christopher J. Bosso, 360K Renaissance Park, c.bosso@northeastern.edu.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete four courses as listed below. Two of the courses must be upper-level (numbered 3000 or higher). Only one course can be from the major.

| Upper-Level Courses |  |  |
| :---: | :---: | :---: |
| COMM 3500 | Environmental Issues, Communication, and the Media | 4 |
| ECON 3404 | International Food Economics and Policy | 4 |
| ENTR 4506 | Advanced Studies in Social Enterprise | 4 |
| ENVR 3300 and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 | 5 |
| ENVR 4515 | Sustainable Development | 4 |
| PHTH 5280 | Food, Food Policy, and Health | 3-4 |
| POLS 3410 | Nontraditional Security Issues | 4 |
| PPUA 4701 | Food Systems Sustainability, Health, and Equity Practicum | 4 |
| PPUA 5263 | Geographic Information Systems for Urban and Regional Policy | 3 |
| PPUA 5270 | Food Systems and Public Policy | 3 |
| Additional Courses |  |  |
| ENTR 2206 | Global Social Enterprise | 4 |
| ENVR 1101 | Environmental Science | 4 |
| ENVS 2342 | Eating and the Environment | 4 |
| HIST 1201 | First-Year Seminar | 4 |
| HSCI 1106 | Contemporary Issues in Nutrition | 4 |
| INSH 1102 | Food in Contemporary Context | 4 |
| PHIL 1185 | The Ethics of Food | 4 |

## GPA Requirement

2.000 GPA required in the minor

## Latino/a, Latin American and Caribbean Studies, Minor

## Overview

The LLACS (Latino/a, Latin American, and Caribbean Studies) program offers an interdisciplinary minor. It explores the historical, cultural, social, 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 information about the minor, contact Associate Professor Daniel Noemi Voionmaa, d.noemivoionmaa@northeastern.edu

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Proficiency in Spanish or Portuguese to course number 3101 or above is strongly encouraged.

## Required Courses

| LACS 1220 | Latino, Latin American, and Caribbean <br> Studies |
| :---: | :--- |
| Complete one of the following: |  |
| HIST 1187 | Introduction to Latin American History |
| HIST 1260 | Modern Latin America |
| CLTR 1505 | Introduction to Latin American Culture |

## Culture and Literature Electives

| Complete two of the following: |  | 8 |
| :---: | :---: | :---: |
| CLTR 1240 | Latin American Film |  |
| CLTR 1504 | Introduction to Spanish Culture |  |
| MUSC 1131 | Music of Latin America and the Caribbean |  |
| CLTR 1509 | An Introduction to Afro-Cuban Culture |  |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  |
| CLTR 2510 | Brazilian Culture through Film |  |
| CLTR 1508 | Cuban History and Culture through Film |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| LITR 4655 | Latin American Literature |  |
| CLTR 1505 | Introduction to Latin American Culture |  |
| LITR 1260 | Caribbean Literature and Culture |  |
| CLTR 3710 | Representing Latin American Cities |  |
| CLTR 3715 | New Narratives: Latin America after 1989 |  |
| CLTR 3725 | Representing Violence and Human Rights in Latin America |  |

CLTR 3720 Literature, Arts, and Poverty in Latin America

## History and Social Sciences Electives

Note: With the approval of the director of Latino/a, Latin American, and Caribbean Studies, up to four study-abroad or Dialogue of Civilization courses may be used toward the minor.

Complete two of the following:

| AFAM 2345 | The Black Experience in the Caribbean |
| :--- | :--- |
| HIST 1260 | Modern Latin America |
| POLS 3475 | Government and Politics in Latin <br> America |
| ANTH 2365 | Sport, Culture, and Society <br> SOCL 3460 |
| Sociology of Latino Society |  |
| SOCL 2270 1206 | Race and Ethnic Relations <br> Drug Trade and Drug War: History, <br> Security, Culture |
| ANTH 4500 | Latin American Society and <br> Development |
| HIST 4660 | Topics in Latin American History |

## GPA Requirement

2.000 GPA required in the minor

## Law and Public Policy, Minor

## 4

The law and public policy minor offers students an opportunity to obtain a thorough understanding of the U.S. legal system and to use that knowledge to examine current law and policy debates. In the LPP minor core courses, students 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 (for example, a superior court judge and 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.

For more information, contact the program director,
Professor Dan Urman, 310 Renaissance Park,
617.373.6145, d.urman@northeastern.edu.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| LPSC 1101 | Introduction to Law ( a grade of B or <br> higher is required) |
| :--- | :--- |
| LPSC 2301 | Introduction to Law, Policy, and Society <br> (a grade of B or higher is required) |

## Law and Public Policy Course

Complete one of the following:

| LPSC 2302 | Global Human Rights: A Social and <br> Economic Perspective |
| :--- | :--- |
| LPSC 3303 | Topics in Law and Public Policy |
| LPSC 3305 | Law and the City |
| LPSC 3306 | Law and Literature |
| LPSC 4304 | Advanced Debates in Law and Public <br> Policy |

## Elective Courses

Complete two of the following courses not used for the
requirements above:

| AFAM 2549 | Public Policy and Black America |
| :---: | :---: |
| ANTH 4580 | Special Topics in Anthropology |
| COMM 1331 | Legal Argumentation, Advocacy, and Citizenship |
| COMM 3501 | Free Speech: Law and Practice |
| CRIM 1300 | The Death Penalty |
| CRIM 1400 | Human Trafficking |
| CRIM 2200 | Criminology |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3900 | Topics in Criminal Justice and Criminology |
| CRIM 4010 | Gender, Crime, and Justice |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4100 | Juvenile Law |
| CRIM 4110 | Legal Philosophy |
| CRIM 4500 | Police Strategy |
| CRIM 4630 | Political Crime and Terrorism |
| CRIM 4710 | Law and Psychology |
| CRIM 4900 | Advanced Seminar in Criminology and Criminal Justice |
| ECON 1240 | Economics of Crime |
| ECON 3404 | International Food Economics and Policy |
| ECON 3423 | Environmental Economics |


| ECON 3424 | Law and Economics |
| :---: | :---: |
| ECON 3461 | Government and Business |
| ENGL 3325 | Rhetoric of Law |
| ENGW 3311 | Advanced Writing for Prelaw |
| ENVR 5210 | Environmental Planning |
| FINA 4312 | Issues in Corporate Governance (for business students only) |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |
| INTL 3400 | International Conflict and Negotiation |
| JRNL 3550 | Law of the Press |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| LPSC 3303 | Topics in Law and Public Policy |
| LPSC 3305 | Law and the City |
| LPSC 3306 | Law and Literature |
| LPSC 4304 | Advanced Debates in Law and Public Policy |
| MUSI 3335 | Copyright Law for Musicians |
| PHIL 1160 | Introduction to Economic Justice |
| PHIL 2301 | Philosophical Problems of Law and Justice |
| PHIL 2303 | Social and Political Philosophy |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3307 | Public Policy and Administration |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |
| SOCL 1241 | Sociology of Violence |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 2205 | Law and Social Justice |
| SOCL 3406 | Class, Crime, and the Legal System |
| SOCL 4514 | "The Wire" and the Study of Urban Inequalities |
| SOCL 4518 | Law and Social Issues |
| WMNS 3100 | Gender, Social Justice, and Transnational Activism |
| WMNS 3500 | Sexuality, Gender, and the Law |

## GPA Requirement

3.000 GPA required in the minor

## Urban Studies, Minor

## Overview

The urban studies minor offers students interested in cities an opportunity to take advantage of the resources of an urban university situated in a major metropolitan area. The minor seeks to equip students with an understanding of the dynamics of urban growth and development and includes the study of urban social and political institutions. Many courses cover climate change, sustainability, housing, and the urban economy. The minor complements many social science majors as well as architecture, business, and engineering. The minor is designed 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 Gavin Shatkin, 310 Renaissance Park, 617.373.3074,
g.shatkin@northeastern.edu.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| POLS 2357 | Growth and Decline of Cities and <br> Suburbs | 4 |
| :--- | :--- | :--- |
| SOCL 2358 | Current Issues in Cities and Suburbs | 4 |

## Elective Courses

Complete two of the following:

| AFAM 2312 | Black History of Boston |
| :---: | :---: |
| AFAM 2399 | Black Community and Social Change |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2350 | Urban Anthropology |
| ARCH 2330 | Architecture, Modernity, and the City, 1800 to 1910 |
| ARCH 2340 | Architecture, Modernity, and the City, 1910 to 1980 |
| ARCH 2550 | Real Estate Development and Design |
| ECON 1240 | Economics of Crime |
| ECON 3420 | Urban Economic Issues |
| ECON 3422 | Economics of Transportation |
| HIST 2232 | History of Boston |
| HIST 2344 | U.S. Urban History |
| HIST 3487 | Central European Capitals on the Eve of World War I |
| LPSC 5201 | Law and the City |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 2357 | Growth and Decline of Cities and Suburbs |
| POLS 2360 | Politics of Poverty |
| POLS 2380 | Latino Politics in the United States |
| POLS 3307 | Public Policy and Administration |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |
| SOCL 1220 | Sociology of Boston |
| SOCL 1247 | Urban Social Problems |
| SOCL 2358 | Current Issues in Cities and Suburbs |
| SOCL 3418 | Greater Boston Urban Policy Seminar |
| SOCL 3455 | Seminar in Urban Sociology |
| SOCL 4514 | "The Wire" and the Study of Urban Inequalities |

## GPA Requirement

3.000 GPA required in the minor

## Women's, Gender, and Sexuality Studies, Minor

## Overview

Northeastern offers an interdisciplinary minor for undergraduate students and a certificate for graduate students who wish to explore gender and sexuality and its relation to other axes of power and identity, including race, class, and ethnicity. Women's, gender, and sexuality studies (WGSS) covers a wide variety of theoretical and empirical scholarship both within traditional disciplines and in cutting-edge, interdisciplinary frames. WGSS
students have an opportunity to:

- Learn about approaches to gender and sexuality in the social sciences and humanities and through frameworks that bridge traditional fields.
- Explore gender and sexuality in the global community by dipping into disciplines ranging throughout the social sciences, arts, humanities, and physical sciences.
- Study politics and pop culture, sociology and psychology, writing and religion, and much more.
- Open up new ways of thinking, bringing gender and sexuality studies to bear on important social and intellectual questions.

For more information, visit the WGSS website (http:// www.northeastern.edu/wgss), or contact the program coordinator, 263 Holmes Hall, 617.373.4984, wgss@northeastern.edu.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Course

WMNS 1103 Introduction to Women's, Gender, and

## Elective Courses

At least one course must be at the 2000 level or above and courses must come from at least two departments.
Complete three of the following:

| AFRS 1185 | Gender in the African Diaspora |
| :--- | :--- |
| ANTH 2302 | Gender and Sexuality: A Cross-Cultural <br> Perspective |
| CINE 3500 | Film Theory |
| CINE 3392 | Gender and Film |
| COMM 1131 | Sex, Relationships, and Communication |
| CLTR 2475 | Gender in Latin American Film |
| COMM 2304 | Communication and Gender <br> Communication and Inclusion (formerly <br> COMM 1304) |
| COMM 35304 | Communication and Sexualities |
| COMM 3610 | Communication, Politics, and Social <br> Change |
| CRIM 4010 | Gender, Crime, and Justice <br> ENGL 3678Bedrooms and Battlefields: Hebrew <br> Bible and the Origins of Sex, Gender, <br> and Ethnicity |
| HIST 2372 | Gender and Society in Modern Europe |
| HIST 2373 | Gender and Sexuality in World History <br> Gender and Sexuality in World History |
| WMNS 2373 |  |


| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy |
| :--- | :--- |
| HUSV 2900 | Gender Violence: Bystander Education <br> Theory and Practice |
| HUSV 5100 | Sexual Violence: Counseling, Programs, <br> and Policy |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |


| WMNS 3441 | Topics in Women's, Gender, and <br> Sexuality Studies |
| :--- | :--- |
| WMNS 3451 | Women's Studies Module |
| WMNS 3500 | Sexuality, Gender, and the Law |
| PHIL 3500 | Sexuality, Gender, and the Law |
| WMNS 3990 | Elective |
| WMNS 4990 | Elective |
| WMNS 4991 | Research |
| WMNS 4992 | Directed Study |
| WMNS 4993 | Independent Study |
| WMNS 4994 | Internship |
| WMNS 4996 | Experiential Education Directed Study |

## GPA Requirement

2.000 GPA required in the minor

## African-American Studies

Website (http://www.northeastern.edu/daas)

## Chris W. Gallagher, PhD

Professor and Interim Chair
201 Renaissance Park
617.373.3148
617.373 .2625 (fax)
daas@northeastern.edu
The Department of African-American Studies is an interdisciplinary department with a mission of teaching and conducting research in social sciences and humanities fields on the historical and contemporary experience of Africans and African- Americans throughout the Diaspora. The department offers a major and a minor in African-American studies, a minor in African studies, and a host of elective courses. International studies and contemporary public policy issues, particularly health-related and international development issues, are also integral elements of the program. All courses are open to all students. Department faculty lead intensive, summer study-abroad programs to Ghana, Kenya, the Caribbean, and other parts of the African Diaspora.

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Programs

## Bachelor of Arts (BA)

- African-American Studies (p. 582)


## Bachelor of Science (BS)

- African-American Studies (p. 584)


## Minor

- African Studies (p. 586)
- African-American Studies (p. 586)


## African-American Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38)

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## African-American Studies Major Requirements Introductory Courses

| AFAM 1101 | Introduction to African-American <br> Studies | 4 |
| :--- | :--- | ---: |
| AFAM 1109 | Foundations of Black Culture 1 | 4 |
| AFRS 1185 | Gender in the African Diaspora | 4 |
| Literature |  | 4 |
| AFAM 4663 | Early African-American Literature |  |

Research and Seminar

| AFRS 3310 | Applied Research in the African <br> Diaspora | 4 |
| :--- | :--- | ---: |
| AFAM 4700 | Advanced Seminar | 4 |
| Electives |  | 24 |
| Complete <br> intermediate | 4 and advanced level from the following: |  |

## AFAM 2000 to AFAM 5999

AFRS 2000 to AFRS 5999

## African-American Studies Major Credit Requirement

Complete 48 semester hours in the major.

## Upper-Division Electives

Complete three general electives numbered 3000 or above that do not double-count with the major or NUpath.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AFAM 1101 | 4 AFRS 1185 | 4 Vacation | 0 Vacation | 0 |
| AFAM 1109 | 4 AFAM 4663 | 4 |  |  |
| MATH 1215 | 4 AFRS 3310 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 | AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Vacation | 0 Co-op | 0 |
| Foreign language course |  | Foreign language course | 4 |  |  |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective |  | AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 <br>  <br>  |  |  |
| Elective | 4 | Elective | 4 |  |  |
|  |  | EESH 2000 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | AFAM 4700 | 4 Elective | 4 Co-op | 0 |
|  |  | ENGW 3315 | 4 Upperdivision elective | 4 |  |
|  |  | AFAM intermediate/ advanced undergraduate elective | 4 <br>  <br>  |  |  |
|  |  | Foreign language course | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Elective | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 Elective | 4 |
|  | Elective | 4 |
| Upper- <br> division <br> elective | 4 |  |
| Elective | 4 |  |
| 0 | 16 |  |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AFAM 1101 | 4 AFRS 1185 | 4 Vacation | 0 Vacation | 0 |
| AFAM 1109 | 4 AFAM 4663 | 4 |  |  |
| MATH 1215 | 4 AFRS 3310 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 |  |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign language course | 4 |  | Elective | 4 |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign language course | 4 |  | Elective | 4 |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| Upperdivision elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AFAM 4700 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3315 | 4 |  |  |  |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| Foreign language course | 4 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| AFAM 4 Upper- <br> intermediate/ division <br> advanced  | 4 |  | undergraduate

elective

| Upper- <br> division <br> elective | 4 Elective | 4 |
| :--- | :---: | :---: |
|  | 16 | 16 |

Total Hours: 129

African-American Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## African-American Studies Major Requirements

Introductory Courses

| AFAM 1101 | Introduction to African-American <br> Studies | 4 |
| :--- | :--- | ---: |
| AFAM 1109 | Foundations of Black Culture 1 | 4 |
| AFRS 1185 | Gender in the African Diaspora | 4 |
| Literature |  | 4 |
| AFAM 4663 | Early African-American Literature | 4 |

Research and Seminar

| AFRS 3310 | Applied Research in the African <br> Diaspora | 4 |
| :--- | :--- | ---: |
| AFAM 4700 | Advanced Seminar | 4 |
| Electives | 24 |  |
| Complete six African-American studies courses at the <br> intermediate and advanced level from the following: |  |  |
| AFAM 2000 to AFAM 5999 |  |  |
| AFRS 2000 to AFRS 5999 |  |  |

## African-American Studies Major Credit Requirement <br> Complete 48 semester hours in the major.

## Upper-Division Electives

Complete three general electives numbered 3000 or above

## Program Requirements

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AFAM 1101 | 4 AFRS 1185 | 4 Vacation | 0 Vacation | 0 |
| AFAM 1109 | 4 AFAM 4663 | 4 |  |  |
| MATH 1215 | 4 AFRS 3310 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 <br> AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Vacation | 0 Co-op | 0 |
| Elective | 4 Elective | 4 |  |  |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 <br> AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Elective | 4 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 AFAM 4700 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
|  | AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective <br> Upper- <br> division <br> elective | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 | 4 |  |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 Upper- | 4 |
|  | division <br> elective |  |


| Upper- <br> division <br> elective | 4 |
| :---: | :---: |
| Elective | 4 |
| Elective | 4 |
| 0 | 16 |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AFAM 1101 | 4 AFRS 1185 | 4 Vacation | 0 Vacation | 0 |
| AFAM 1109 | 4 AFAM 4663 | 4 |  |  |
| MATH 1215 | 4 AFRS 3310 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  |  |  |
| AFAM <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 4 |
| EESH 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AFAM <br> intermediate/ | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| advanced <br> undergraduate <br> elective |  |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 4 |
| AFAM <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AFAM 4700 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3315 | 4 |  |  |  |
| AFAM | 4 |  |  |  |
| intermediate/ <br> advanced <br> undergraduate <br> elective |  |  |  |  |


| Elective | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 16 | 0 | 0 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Upperdivision elective | 4 Upperdivision elective | 4 |  |  |
| AFAM undergraduat elective | 4 Upperdivision elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 |  |  |

Total Hours: 129

## African Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Course

AFRS 1101
Introduction to African Studies (A grade of $C$ or higher is required)

## Social Sciences

Complete two of the following:

| AFAM 3441 | Third World Political Relations |
| :---: | :---: |
| AFRS 1185 | Gender in the African Diaspora |
| AFRS 2307 | Africa Today |
| AFRS 2414 | Global Revolution |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| AFRS 3428 | African Languages |
| AFRS 3460 | Contemporary Government and Politics in Africa |
| AFRS 3470 | Identity and Nationalism in Africa |
| AFRS 4939 | Community Health, Culture, and Development in Kenya |
| AFRS 4993 | Independent Study |
| ANTH 4510 | Anthropology of Africa |
| INTL 3565 | Morocco: History, Cultures, and Economic Development in the Mediterranean Basin |
| POLS 3487 | Politics of Developing Nations |

## Humanities

Complete two of the following:

| AFAM 1109 | Foundations of Black Culture 1 |
| :--- | :--- |
| AFRS 1128 | The African Experience through Music |
| AFRS 1180 | African History |
| AFRS 2391 | Modern African Civilization |
| AFRS 2348 | Arts and Culture of Africa |


| AFRS 2392 | African Diaspora |
| :--- | :--- |
| AFRS 3410 | Religion and Spirituality in the African <br> Diaspora |
| AFRS 3428 | African Languages |
| AFRS 3470 | Identity and Nationalism in Africa |
| AFRS 4690 | Topics in African History |
| AFRS 4500 | Arts of the African Diaspora |
| HIST 4690 | Topics in African History |
| SWHL 1101 | Elementary Swahili 1 |

## GPA Requirement

2.000 GPA required in the minor

## African-American Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| AFAM 1101 | Introduction to African-American | 4 |
| :---: | :--- | :---: |
| AFAM 1109 | Studies | 4 |
| AFRS 1185 | Foundations of Black Culture 1 | 4 |
| AFRS 3310 | Gender in the African Diaspora | 4 |
| or AFAM 4700 | Applied Research in the African | Diaspora |

## 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

Website (http://www.northeastern.edu/cssh/asl)
Dennis R. Cokely, PhD
Professor and Director
225B Renaissance Park
617.373.3064
617.373 .3065 (fax)

Dennis R. Cokely, Professor and Director, d.cokely@northeastern.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. ASL 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.

## Academic Progression Standards

A minimum cumulative GPA of 2.500 overall, a 2.750 GPA in all ASL courses, and no grade lower than a C in AMSL, DEAF, and INTP courses are required to remain in good standing in the major.

## Programs

## Bachelor of Science (BS)

- American Sign Language (p. 587)
- American Sign Language and Human Services (p. 588)
- American Sign Language and Psychology (p. 588)
- American Sign Language and Theatre (p. 590)


## Minor

- American Sign Language (p. 591)


## American Sign Language, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
American Sign Language Major Requirements

| AMSL 1101 | Elementary ASL 1 | 4 |
| :---: | :---: | :---: |
| AMSL 1102 | Elementary ASL 2 | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |
| AMSL 2102 | Intermediate ASL 2 | 4 |
| AMSL 3101 | Advanced ASL 1 | 4 |
| AMSL 3102 | Advanced ASL 2 | 4 |
| Social and Cultural World |  |  |
| DEAF 1500 | Deaf People in Society | 4 |
| DEAF 2500 | Deaf History and Culture | 4 |
| Linguistics |  |  |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| DEAF 2700 | ASL Linguistics | 4 |


| Performance Interpreting |
| :--- | :--- |
| INTP $3550 \quad$ Performance Interpreting-Interpreting |

## Intrepreting

| INTP 3500 | The Interpreting Profession | 2 |
| :--- | :--- | :--- |
| INTP 3510 | Interpreting Inquiry Texts | 4 |
| INTP 3515 | Interpreting Narrative Texts | 4 |
| INTP 4510 | Interpreting Expository Texts | 4 |
| INTP 4515 | Interpreting Persuasive Texts | 4 |
| Interpreting Practicum | Interpreting Practicum | 4 |
| INTP 4995 | Ethical Decision Making | 4 |
| Ethics | Ethical Fieldwork | 2 |
| INTP 4650 |  | 4 |
| RTP 4651 | Interpreting Research Practicum | 4 |
| INTP 4940 |  |  |

## American Sign Language Major GPA Requirement

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

## American Sign Language Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required
Plan of Study
Four Years, No Co-op

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| DEAF 1500 | 4 AMSL 1102 | 4 | Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| DEAF 2500 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| AMSL 2101 | 4 DEAF 2700 | 4 |  |  |
| LING 1150 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTP 3500 | 2 INTP 3515 | 4 Vacation | 0 Vacation | 0 |
| INTP 3510 | 4 INTP 3550 | 4 |  |  |
| ENGW 3315 | 4 AMSL 3102 | 4 |  |  |
| AMSL 3101 | 4 Elective | 4 |  | 0 |
|  | 14 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| INTP 4650 | 4 INTP 4515 | 4 |
| INTP 4510 | 4 INTP 4995 | 4 |
| INTP 4651 | 2 Elective | 4 |
| INTP 4940 | 4 Elective | 4 |


| Elective | 4 |  |
| :--- | ---: | :--- |
|  | 18 | 16 |

Total Hours: 129

## American Sign Language and Human Services, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Human Services CombinedMajor Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| American Sign Language |  |  |
| AMSL 1101 | Elementary ASL 1 | 4 |
| AMSL 1102 | Elementary ASL 2 | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |
| AMSL 2102 | Intermediate ASL 2 | 4 |
| AMSL 3101 | Advanced ASL 1 | 4 |
| AMSL 3102 | Advanced ASL 2 | 4 |
| Social and Cultural | World | 4 |
| DEAF 1500 | Deaf People in Society | 4 |
| DEAF 2500 | Deaf History and Culture | 4 |
| Linguistics |  | 4 |
| LING 1150 | Introduction to Language and | 4 |
| DEAF 2700 | Linguistics | 4 |
| Performance | Interpreting Linguistics | 4 |


| Performance Interpreting | 2 |  |
| :--- | :--- | :---: |
| INTP 3500 | The Interpreting Profession |  |
| Interpreting |  | 4 |
| INTP 3510 | Interpreting Inquiry Texts | 4 |
| Human Services |  | 4 |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 4700 | Senior Seminar in Human Services |  |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management |  |

## Research

| HUSV 3700 | Research Methods for Human Services | 4 |
| :--- | :--- | :---: |
| Policy | Introduction to Social Policy | 4 |
| HUSV 3900 | Sociology of Human Service <br> Organizations | 4 |
| SOCL 3440 | Organizations |  |

[^17]Complete one course in HUSV subject area. 4
Integrative Course Work
INTP 4940 Interpreting Research Practicum 4
HUSV 4994 Human Services Internship 6

## Combined-Major GPA Requirement

Minimum 2.750 GPA required in all ASL courses
Minimum 2.500 overall GPA required
Combined-Major Credit Requirement
Complete 88 semester hours in the major.

## Program Requirements

128 total semester hours required

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 1101 | 4 AMSL 1102 | 4 Vacation | 0 Vacation | 0 |
| DEAF 1500 | 4 MATH 1215 | 4 |  |  |
| HUSV 1101 | 4 HSVC <br> elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 DEAF 2700 | 4 |  |  |
| INTP 4560 | 4 HUSV 2300 | 4 |  | 0 |
| Elective | 4 Elective | 4 | 0 |  |
|  | 16 | 16 |  |  |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| DEAF 2500 | 4 HUSV 3700 | 4 Vacation | 0 Vacation | 0 |
| SOCL 3440 | 4 Elective | 4 |  |  |
| INTP 3510 | 4 ENGW 3315 | 4 |  | 0 |
| AMSL 3101 | 4 AMSL 3102 | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| INTP 4940 | 4 HUSV 4700 | 4 |
| HUSV 3900 | 4 Elective | 4 |
| HUSV 4994 | 6 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 18 | 16 |

Total Hours: 130

## American Sign Language and Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Psychology Combined-Major Requirements

Code Title Hours

## American Sign Language

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


| Social and Cultural World | 4 |  |
| :--- | :--- | :---: |
| DEAF 1500 | Deaf People in Society | 4 |
| DEAF 2500 | Deaf History and Culture | 4 |
| Linguistics |  | 4 |
| LING 1150 | Introduction to Language and <br>  <br> DEAF 2700 | ASL Linguistics |


| Performance |  |  |
| :--- | :--- | ---: |
| Interpreting |  |  |
| Interpreting | The Interpreting Profession |  |
| INTP 3510 | Interpreting Inquiry Texts | 4 |
| Psychology |  | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| PSYC 3466 | Cognition | 4 |

Psychology Lab or Directed Study
Complete one of the following:

| PSYC 4600 | Laboratory in Research Design |
| :--- | :--- |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4614 | Laboratory in Social Psychology |
| PSYC 4616 | Laboratory in Personality |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional <br>  <br> PSYC 4991 |

Personal/Social Bases of Behavior (Area A)
Complete two of the following:

| PSYC 3400 | Personality |
| :--- | :--- |
| PSYC 3402 | Social Psychology |
| PSYC 3404 | Developmental Psychology |
| PSYC 3406 | Abnormal Psychology |

## Biological/Cognitive Bases of Behavior (Area B)

Complete one of the following:

| PSYC 3450 | Learning and Motivation |  |
| :---: | :---: | :---: |
| PSYC 3451 | Learning Principles and Behavior Analysis |  |
| PSYC 3452 | Sensation and Perception |  |
| PSYC 3458 | Biological Psychology |  |
| Psychology Elective |  |  |
| Complete one of the following: |  | 4 |
| PSYC 2356 | Nonverbal Communication |  |
| PSYC 4520 | Language and the Brain |  |
| PSYC 4522 | Psychology of Reading |  |
| PSYC 4524 | Cognitive Development |  |
| PSYC 4526 | Categorization and Reasoning |  |
| PSYC 4658 | Seminar in Psycholinguistics |  |
| PSYC 4660 | Seminar in Cognition |  |
| PSYC 4674 | Seminar in Cognitive Neuroscience |  |
| Integrative Course Work |  |  |
| INTP 4940 | Interpreting Research Practicum | 4 |
| PSYC 3464 | Psychology of Language | 4 |

## Combined-Major GPA Requirement

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

## Combined-Major Credit Requirement

Complete 82 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Four Years, No Co-op

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AMSL 1101 | 4 AMSL 1102 | 4 Vacation | 0 |  |
| DEAF 150cation | 0 |  |  |  |
| PSYC 1101 | 4 MATH 1215 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
|  | 16 | 4 |  | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 DEAF 2700 | 4 |  |  |
| DEAF 2500 | 4 PSYC 2320 | 4 |  |  |
| Elective | 4 PSYC 3464 | 4 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 3101 | 4 PSYC 4524 | 4 Vacation | 0 Vacation | 0 |
| Psych Area | 4 Psych Area | 4 |  |  |
| A elective | B elective |  |  |  |
| ENGW 3315 | 4 Elective | 4 |  |  |
| INTP 3510 | 4 AMSL 3102 | 4 | 0 | 0 |
|  | 16 | 16 | 0 |  |


| Year 4 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| INTP 4940 | 4 Psych lab <br> elective | 4 |
| PSYC 4658 | 4 Psych Area |  |
| A elective | 4 |  |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## American Sign Language and Theatre, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Theatre Combined-Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| American Sign Language |  |  |
| AMSL 1101 | Elementary ASL 1 | 4 |
| AMSL 1102 | Elementary ASL 2 | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |
| AMSL 2102 | Intermediate ASL 2 | 4 |
| AMSL 3101 | Advanced ASL 1 | 4 |
| Social and Cultural | World | 4 |
| DEAF 1500 | Deaf People in Society | 4 |
| DEAF 2500 | Deaf History and Culture |  |
| Linguistics |  | 4 |
| LING 1150 | Introduction to Language and | 4 |
|  | Linguistics | 4 |


| Performance Interpreting | 4 |  |
| :--- | :--- | ---: |
| INTP 3550 | Performance Interpreting-Interpreting <br> for the Theatre | 4 |
| Interpreting | The Interpreting Profession | 2 |
| INTP 3500 |  |  |

## Theatre

A grade of C or higher is required for all theatre courses
Foundational Stages

| THTR 1101 | Introduction to Theatre | 4 |
| :--- | :--- | :--- |
| THTR 1120 | Acting 1 | 4 |
| THTR 1131 | Technical Theatre 1 | 4 |
| THTR 1270 | Introduction to Theatrical Design | 4 |


| THTR 2325 | From Script to Stage | 4 |
| :---: | :---: | :---: |
| Theatre Texts and Context |  |  |
| Choose one of the following: |  | 4 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2340 | Theatre and Society |  |
| Making Theatre |  |  |
| THTR 1100 | Production Experience 1 | 1 |
| THTR 2000 | Production Experience 2 | 1 |
| Intermediate or Advanced Technique |  |  |
| Choose two of the following: |  | 8 |
| THTR 2300 | Theatre History: Greek Tragedy to Romanticism |  |
| THTR 2310 | History of Musical Theatre |  |
| THTR 2315 | Rebels of Modern Drama |  |
| THTR 2320 | America Onstage: Dramatizing the Dream |  |
| THTR 2330 | Playwriting |  |
| THTR 2340 | Theatre and Society |  |
| THTR 2342 | Acting 2 |  |
| THTR 2345 | Acting for Cameras |  |
| THTR 2346 | Viewpoints |  |
| THTR 2360 | Stage Makeup |  |
| THTR 2365 | Technical Theatre 2 |  |
| THTR 2370 | Lighting Design for the Stage |  |
| THTR 2380 | Costume Design |  |
| THTR 2400 | Scenic Design |  |
| THTR 2600 | Voice and Speech for the Actor |  |
| THTR 3450 | Acting 3-Playing Shakespeare |  |
| THTR 3550 | Directing for the Stage |  |
| THTR 3570 | Musical Theatre Technique |  |
| Integrative Course Work |  |  |
| INTP 4940 | Interpreting Research Practicum | 4 |
| THTR 4702 | Capstone Rehearsal and Performance | 4 |

## Combined-Major GPA Requirement

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

## Combined-Major Credit/Grade Requirement

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

## Program Requirement

128 total semester hours required

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| AMSL 1101 | 4 AMSL 1102 | 4 Vacation | 0 Vacation | 0 |
| DEAF 1500 | 4 THTR 1120 | 4 |  |  |
| THTR 1101 | 4 MATH 1215 | 4 |  |  |


| ENGW 1111 | 4 Elective | 4 |  |  |
| :--- | :---: | :---: | :---: | ---: |
|  | 16 | 16 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 DEAF 2700 | 4 |  |  |
| DEAF 2500 | 4 THTR 1131 | 4 |  |  |
| THTR 1270 | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTP 4560 | 4 THTR 1250 | 4 Vacation | 0 Vacation | 0 |
| THTR 2325 | 4 INTP 3550 | 4 |  |  |
| THTR 3700 | 4 THTR 2300 | 4 |  |  |
| INTP 3510 | 4 AMSL 3102 | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| THTR 1100 | 1 Elective | 4 |
| THTR 3500 | 4 Elective | 4 |
| ENGW 3315 | 4 INTP 4940 | 4 |
| Elective | 4 THTR 2000 | 1 |
| Elective | 4 Elective | 4 |
|  | 17 | 17 |

Total Hours: 130

## American Sign Language, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture | 4 |
| :--- | :--- | :--- |
| DEAF 1500 | Deaf People in Society | 4 |

## Required Language Courses

Students with prior skills in American Sign Language are allowed to waive up to four AMSL courses:

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

## Elective

Elective
Complete one of the following: 4

| AMSL 3101 | Advanced ASL 1 |
| :--- | :--- |
| AMSL 3102 | Advanced ASL 2 |
| AMSL 3900 | Specialized Instruction in ASL |
| AMSL 4900 | Specialized Instruction in ASL |
| AMSL 4992 | Directed Study |
| AMSL 4993 | Independent Study |


| DEAF 1550 | Dynamics of the Deaf/Blind <br> Community: Culture, History, and <br> Communication |
| :--- | :--- |
| DEAF 2500 | Deaf History and Culture |
| DEAF 2700 | ASL Linguistics |

## GPA Requirement

2.000 GPA required in the minor

## Asian Studies

Website (http://www.northeastern.edu/asianstudies)
Gavin Shatkin, PhD
Director

310 Renaissance Park
617.373.3074

Gavin Shatkin, Director, g.shatkin@northeastern.edu
The Asian studies major at Northeastern offers undergraduates a broad liberal arts education in the histories, politics, cultures, and societies of Asia. It is designed to promote a cosmopolitan understanding of the regional, national, and local cultures in the fastest-growing continent in the world. Asian studies students are asked to complete two years of an Asian language in addition to pursuing a rigorous course of study covering a number of disciplines and national traditions. Our interdisciplinary program is based on an excellent core of faculty who are drawn from a range of departments (including languages, literatures, and cultures; English; history; music; political science; philosophy and religion; public policy; and sociology and anthropology) and the World Languages Center. Our students are strongly encouraged to accelerate their language acquisition process and gain firsthand knowledge of Asian cultures and societies through participation in a university-sponsored study-abroad program, an international co-op, a Dialogue of Civilizations program, or an experiential learning experience. Students can also take advantage of the outstanding Asian cultural resources available in the Boston metropolitan area, particularly at the Museum of Fine Arts and the Peabody Essex Museum in Salem.
andersity-wide standards described under "Academic Status (http://northeastern.edu/undergraduate/academic-policies-procedures/ progression-standards/\#status)."

## Preapproved Template Program in Asian Studies

Asian studies offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/ major-2.html).

Students may request admission to such a combined major via the Combined Major Approval Form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs <br> Bachelor of Arts (BA) <br> - Asian Studies (p. 592)

## Minor

- East Asian Studies (p. 593)


## Asian Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Asian Studies Requirements

## Required Courses

| ASNS 1150 | East Asian Studies | 4 |
| :--- | :--- | :--- |
| HIST 1215 | Origins of Today: Historical Roots of | 4 |
|  | Contemporary Issues |  |

## Asia in Global Context

| Complete one of the following: |  |
| :--- | :--- |
| ECON 1290 | History of the Global Economy |
| ENGL 2450 | Postcolonial Literature |
| HIST 1110 | Introduction to World History |
| INTL 2240 | Global Population and Development |
| POLS 3487 | Politics of Developing Nations |
| PPUA 5265 | Urban and Regional Policy in <br> Developing Countries |
| SOCL 3455 | Seminar in Urban Sociology |
| Capstone |  |

Complete one of the following: 4

| ASNS 4900 | Asian Studies Capstone Directed Study |
| :--- | :--- |
| ASNS 4910 | Issues in Modern and Contemporary <br> Asia |
| ASNS 4920 | Asian Studies Capstone Seminar |

## International Experience

Complete a professional or academic experience abroad in
consultation with your advisor.

## Language and Elective Requirements

## Language Courses

Complete the following courses in either Chinese or

## Japanese:

4

Select one of the following:
CHNS 1101 Elementary Chinese 1
CHNS 1201 Elementary Chinese 1-BSIB
CHNS 1301 Elementary Chinese Immersion 1
Select one of the following:
CHNS 1102 Elementary Chinese 2
CHNS 1202 Elementary Chinese 2-BSIB
CHNS 1302 Elementary Chinese Immersion 2
Select one of the following:
CHNS 2101 Intermediate Chinese 1
CHNS 2201 Intermediate Chinese 1-BSIB
CHNS 2301 Intermediate Chinese Immersion 1
Select one of the following:
CHNS 2102 Intermediate Chinese 2
CHNS 2202 Intermediate Chinese 2-BSIB
CHNS 2302 Intermediate Chinese Immersion 2
Japanese
JPNS 1101 Elementary Japanese 1
or JPNS 1301 Elementary Japanese Immersion 1
JPNS 1102 Elementary Japanese 2
or JPNS 1302 Elementary Japanese Immersion 2
JPNS 2101 Intermediate Japanese 1
or JPNS 2301 Intermediate Japanese Immersion 1
JPNS 2102 Intermediate Japanese 2
or JPNS 2302 Intermediate Japanese Immersion 2

## Asian Studies Electives

Complete six courses from the following focus areas. Choose 24
4 at least three courses from one focus area:

| HIST 1189 | Introduction to South Asian History |
| :---: | :---: |
| HIST 1246 | World War II in the Pacific |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1254 | Mao's China and After |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2243 | American Images of China |
| HIST 2308 | Law, Justice, and Society in Modern China |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and Korea |
| HIST 3452 | Global Chinese Migration |
| HIST 4650 | Topics in Asian History |

Society and Politics Focus Area

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4515 | Culture and Politics in Modern India |
| ASNS 2245 | The Asian-American Experience |
| INTB 2501 | Competing to Win in Emerging Markets |
| MKTG 4220 | Marketing in Asia |
| PHIL 1130 | Ethics: East and West |
| POLS 3480 | Government and Politics in Japan |
| POLS 3485 | China: Governance and Foreign Policy |
| INTL 2240 | Global Population and Development |
| POLS 3487 | Politics of Developing Nations |


| PPUA 5265 | Urban and Regional Policy in Developing Countries |
| :---: | :---: |
| SOCL 3455 | Seminar in Urban Sociology |
| Language, Literature, and Culture Focus Area |  |
| ARCH 1320 | Architecture and Global Cultures, 1400 to Present |
| ARCH 2310 | Chinese Architecture 1: Premodern |
| ARCH 2320 | Chinese Architecture 2: Modern |
| CLTR 1260 | Japanese Film |
| CLTR 1700 | Introduction to Japanese Pop Culture |
| ENGL 2450 | Postcolonial Literature |
| MUSC 2130 | Music of Asia |
| PHIL 1130 | Ethics: East and West |
| Religious Studies Focus Area |  |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4545 | Religion and Politics in South Asia |

## Asian Studies Major Credit Requirement

Complete 56 semester hours in the major.

## Program Requirements

128 total semester hours required

## East Asian Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Complete either the nonlanguage track or the language track.

## Nonlanguage Track

## Core Course

ASNS $1150 \quad$ East Asian Studies 4
Elective Courses
Complete four of the following courses. They may include up
to two courses taken as part of an approved study-abroad program:

| ENGL 2470 | Asian-American Literature |
| :--- | :--- |
| ASNS 2245 | The Asian-American Experience |
| HIST 1189 | Introduction to South Asian History |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1256 | Chinese Civilization in Her Eyes |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2243 | American Images of China |
| HIST 1252 | Japanese Literature and Culture |
| HIST 2308 | Law, Justice, and Society in Modern |


| HIST 2351 | Modern Japan |
| :--- | :--- |
| HIST 2352 | Dictators and Democracy in Japan and <br> Korea |
| HIST 4650 | Topics in Asian History |
| HIST 4942 | East Asian Cultural History Abroad |
| CHNS 1101 | Elementary Chinese 1 |
| CHNS 1102 | Elementary Chinese 2 |
| CHNS 2101 | Intermediate Chinese 1 |
| CHNS 2301 | Intermediate Chinese Immersion 1 |
| CLTR 1500 | Modern Chinese History and Culture |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| JPNS 1101 | Elementary Japanese 1 |
| JPNS 1102 | Elementary Japanese 2 |
| JPNS 2101 | Intermediate Japanese 1 |
| CLTR 1700 | Introduction to Japanese Pop Culture |
| CLTR 1260 | Japanese Film |
| POLS 3480 | Government and Politics in Japan |
| POLS 3485 | China: Governance and Foreign Policy |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: |
| Eastern Religions |  |
| PHIL 1276 | Indian Religions |
| PHIL 2394 2395 | Chinese Buddhism |
| PHIL 2398 | Japanese Buddhism  <br> RHIL 4393 Asian Religions in the United States <br> PHIL 4545 Religion and Politics in South Asia |

## Language Track

## Core Course

ASNS $1150 \quad$ East Asian Studies 4

## Required Courses

Complete the following two courses in either Chinese or 8
Japanese:
Chinese

| CHNS 1101 | Elementary Chinese 1 |
| :--- | :--- |
| and CHNS 1102 | and Elementary Chinese 2 |

Japanese

| JPNS 1101 | Elementary Japanese 1 |
| :--- | :--- |
| and JPNS 1102 | and Elementary Japanese 2 |

Elective Courses
Complete two of the following courses. They may include up 8
to two courses taken as part of an approved study-abroad program:

| ASNS 2245 | The Asian-American Experience |
| :--- | :--- |
| ENGL 2470 | Asian-American Literature |
| HIST 1189 | Introduction to South Asian History |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1256 | Chinese Civilization in Her Eyes |
| HIST 2243 | American Images of China |
| HIST 1252 | Japanese Literature and Culture |
| HIST 2308 | Law, Justice, and Society in Modern <br>  |


| HIST 3452 | Global Chinese Migration |
| :--- | :--- |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and <br> Korea |
| HIST 4650 | Topics in Asian History |
| HIST 4942 | East Asian Cultural History Abroad |
| CLTR 1500 | Modern Chinese History and Culture |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| CHNS 2101 | Intermediate Chinese 1 |
| CHNS 2301 | Intermediate Chinese Immersion 1 |
| CLTR 1700 | Introduction to Japanese Pop Culture |
| CLTR 1260 | Japanese Film |
| JPNS 2101 | Intermediate Japanese 1 |
| POLS 3480 | Government and Politics in Japan |
| POLS 3485 | China: Governance and Foreign Policy |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond:  <br> PHIL 1276 Eastern Religions <br> PHIL 2394 Indian Religions <br> PHIL 2395 Chinese Buddhism  <br> PHIL 2398 Religion and Culture in Indian Cinema Religions in the United States <br> PHIL 4393 Religion and Politics in South Asia <br> PHIL 4545 Ren |

## GPA Requirement

2.000 GPA required in the minor

## School of Criminology and Criminal Justice

Website (http://www.northeastern.edu/sccj)

James Alan Fox, PhD
Lipman Family Professor and Interim Director

## Amy Farrell, PhD

Associate Professor and Undergraduate Program Director

## Natasha Frost, PhD

Associate Professor, Associate Director, and Graduate Program Director
204 Churchill Hall
617.373.3327
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sccj@northeastern.edu
The School of Criminology and Criminal Justice was established in 1967 as one of the first schools of its kind devoted to matters of crime and justice. The school is a leading force in education, research, and policymaking in both the public and the private sectors of the criminal justice field.

The School of Criminology and Criminal Justice seeks to prepare students for professional and research careers in criminology, criminal justice, and related fields by applying multidisciplinary and comparative social science to understand, predict, and explain crime as well as to contribute to the development of public policy on crime and justice issues. The school 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 to ensure justice.

The world of criminal justice is much more than police officers, corrections officials, criminal defense lawyers, or security and loss prevention personnel. At the School of Criminology and 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 School of Criminology and Criminal Justice has had a long-standing attachment and commitment to improving a wide range of justice system agencies. The school 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, differential impact of justice policy on certain groups, and the like. Research conducted at Northeastern on these topics is approached with ethical sensitivity and scientific rigor.

Criminology and criminal justice, as a social science, began in the early part of the twentieth century. Nearly one hundred years old, the field has blossomed in large part through the ingenuity of several notable scholars. The School of Criminology and Criminal Justice is pleased to be home to many of the country's preeminent contemporary scholars. School of Criminology and Criminal Justice faculty members regularly present at scholarly conferences, national and international seminars, and to policymakers worldwide.

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Programs

## Bachelor of Science (BS)

- Criminal Justice (p. 594)
- Computer Science and Criminal Justice (p. 597)
- Criminal Justice and Political Science (p. 600)
- Criminal Justice and Psychology (p. 602)
- Human Services and Criminal Justice (p. 603)


## Dual Degrees

- Criminal Justice, BS/MS (p. 605)
- Criminal Justice, BS/JD (p. 606)


## Minor

- Criminal Justice (p. 607)


## Criminal Justice, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38),

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34)

## Breadth Courses for Criminal Justice

## Computer Science

| CS 1100 | Computer Science and Its Applications | 4 |
| :---: | :---: | :---: |
| Mathematics |  |  |
| Complete one of the following: |  | 4 |
| MATH 1215 | Mathematical Thinking |  |
| MATH 1231 | Calculus for Business and Economics |  |
| MATH 1241 | Calculus 1 |  |
| MATH 1242 | Calculus 2 |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 |  |
| MATH 1252 | Calculus and Differential Equations for Biology 2 |  |
| MATH 1340 | Intensive Calculus for Engineers |  |
| MATH 1341 | Calculus 1 for Science and Engineering |  |
| MATH 1342 | Calculus 2 for Science and Engineering |  |

## Criminal Justice Sequence Requirements

Complete three courses from the same department, two of which must be numbered 2000 or above or complete a minor.

## Criminal Justice Major Requirements

| Criminal Justice Core Requirements |  |  |
| :--- | :--- | :--- |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |

Criminal Justice Integrated Learning Core
Introduction to College

| CRIM 1000 | Criminal Justice at Northeastern |
| :--- | :--- |
| Co-op Integration Seminars |  |
| Co-op students should complete at least two of the following:  <br> CRIM 2000 Co-op Integration Seminar 1 (required <br> for the first co-op) <br> CRIM 3000 Co-op Integration Seminar 2 (required <br> for the first co-op) <br> CRIM 4000 Co-op Integration Seminar <br> a second co-op is taken) <br> Non-co-op students should complete one additional criminal <br> justice elective with credit of at least 4 semester hours.  |  |

Senior Capstone
CRIM 4949 Senior Capstone Seminar
4

| Complete one of the following: |  |
| :--- | :--- |
| CRIM 1300 | The Death Penalty |
| CRIM 1400 | Human Trafficking |
| CRIM 1500 | Corruption, Integrity, and Accountability |
| CRIM 1600 | Crimes against Humanity |
| CRIM 1700 | Crime, Media, and Politics |
| Survey Electives |  |
| Complete two of the following: |  |
| CRIM 3010 | Criminal Violence |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| CRIM 3900 | Topics in Criminal Justice and |
|  | Criminology |

System-Wide Elective
Complete one of the following:

| CRIM 4010 | Gender, Crime, and Justice |
| :--- | :--- |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4030 | Criminal Justice Organization and <br> Management |
| CRIM 4040 | Crime Prevention |

Criminal Justice Open Electives
Complete four courses from the following range:
CRIM 4001 to CRIM 7999

## Criminal Justice Credit Requirement

Complete 59 credit hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 1000 | 1 CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 PSYC 1101 | 4 |  |  |
| SOCL 1101 | 4 MATH 1215 | 4 |  |  |
| CS 1100 | 4 Elective | 4 |  |  |
| ENGW 1111 | 4 |  |  | 0 |
|  | 17 | 16 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 2100 | 4 Criminal | 4 Vacation | 0 Co-op | 0 |

## Criminal Justice Electives

## Thematic Elective

| CRIM 2200 |  | Outside-criminaljustice elective or sequence | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Outside-criminaljustice elective or sequence |  | Outside-criminaljustice elective or sequence | 4 |  |  |
| Outside-criminaljustice elective or |  | Criminal justice concentration elective | 4 |  |  |
|  |  | CRIM 2000 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CRIM 3600 |  | Criminal justice advanced elective | 4 Co-op | 0 |
|  | CRIM 3000 |  | Outside-criminaljustice elective or sequence | 4 |  |
|  | Criminal justice system-wide elective | 4 |  |  |  |
|  | ENGW 3305 | 4 |  |  |  |
|  | Outside-criminaljustice elective or sequence | 4 |  |  |  |
|  | 0 | 17 |  | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 CRIM 3700 | 4 Outside- <br> criminal- <br> justice <br> elective or <br> sequence | 4 Co-op | 0 |


|  |  | Outside-criminaljustice elective or sequence | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  | 17 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op | 0 | CRIM 4949 | 4 |  |  |
|  |  | Criminal justice advanced elective | 4 |  |  |
|  |  | Criminal justice advanced elective | 4 |  |  |
|  |  | Outside-criminaljustice elective or sequence | 4 |  |  |
|  | 0 |  | 16 |  |  |

Total Hours: 132

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 1000 | 1 CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 PSYC 1101 | 4 |  |  |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| SOCL 1101 | 4 Elective | 4 |  |  |
| CS 1100 | 4 | 16 | 0 | 0 |
|  | 17 |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 2100 | 4 Co-op | 0 Co-op | 0 Outside- | 4 |
| criminal- |  |  |  |  |
| justice |  |  |  |  |
| elective or |  |  |  |  |
| sequence |  |  |  |  |$\quad$| CRIM 2200 |
| :--- |


| CRIM 2000 | 1 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Outside- <br> criminal- <br> justice <br> elective or <br> sequence | 4 |  |  |  |
| Outside- <br> criminal- <br> justice <br> elective or <br> sequence | 4 |  | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CRIM 3600 | 4 Co-op | 0 Co-op | 0 Criminal justice advanced elective | 4 |
| Criminal justice concentration elective | 4 |  | Outside-criminaljustice elective or sequence | 4 |
| Criminal justice concentration elective | 4 |  |  |  |
| ENGW 3305 | 4 |  |  |  |
| CRIM 3000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CRIM 3700 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Criminal justice system-wide elective | 4 |  |  |  |
| Outside-criminaljustice elective or sequence | 4 |  |  |  |
| Outside-criminaljustice elective or sequence | 4 |  |  |  |
| CRIM 4000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 0 |


| Year 5 |  |  |
| :---: | :---: | :---: |
| Fall | Hours Spring | Hours |
| Criminal justice advanced elective | 4 CRIM 4949 | 4 |
| Outside-criminaljustice elective or sequence | 4 Criminal justice advanced elective | 4 |
| Outside-criminaljustice elective or sequence | 4 Criminal justice advanced elective | 4 |
| Outside-criminaljustice elective or sequence | 4 Outside-criminaljustice elective or sequence | 4 |
|  | 16 | 16 |

Total Hours: 132

## Computer Science and Criminal Justice, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Computer Science Overview |  |  |
| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| Computer Science Fundamental Courses |  |  |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| CS 2500 and CS 2501 | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| CS 2800 and CS 2801 | Logic and Computation and Lab for CS 2800 | 5 |

Computer Science Required Courses

| CS 3200 | Database Design | 4 |
| :--- | :--- | :--- |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 2000 | Principles of Information Science | 4 |

Co-op Preparation Requirement
Complete one of the following consistent with your major: 1

| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |
| :--- | :--- | :--- |
| or CRIM 2000 | Co-op Integration Seminar 1 |

from the following ranges:
CS 2500 to CS 7999, but not CS 5010
IS 2000 to IS 7999, but not IS 4900
DS 2000 to DS 7999, but not DS 4900
Presentation Requirement

| THTR $1170 \quad$ The Eloquent Presenter | 1 |
| :--- | :--- |

## Criminal Justice Courses

| Code | Title | Hours |
| :--- | :--- | :--- |
| Criminal Justice Required Courses |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CRIM 3600 | Criminal Justice Research Methods | 4 |



| CRIM 3600 | 4 CRIM 3700 | 4 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| CRIM | 4 CRIM | 4 |  |  |
| Elective 1 | Elective 2 |  |  |  |
|  | Elective | 4 | 8 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | CRIM <br> Elective 3 | 4 Elective | 4 |  |
|  | CRIM <br> Elective 4 | 4 |  |  |
|  | SOCL 4528, <br> 3485, 1280, <br> ANTH 3418, <br> PHIL 1145, <br> or IA 5240 | 4 |  |  |
|  | THTR 1170 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |


| Year 4 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours |
| Co-op |  | CS Elective 3 | $4$ | Elective (if needed) | 4 |
|  |  | CRIM 4949 |  | Elective (if needed) | 4 |
|  |  | $\begin{aligned} & \text { CRIM 4040, } \\ & 4630,4640, \\ & 4800 \text {, or } \\ & 4900 \end{aligned}$ | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 |  | 8 |

Total Hours: 134

## Four Years, Two Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 and CS 1801 | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 CRIM 2200 | 4 |  |  |
| CRIM 1100 | 4 |  |  |  |
|  | 18 | 17 | 8 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1210 or CRIM 2000 | 1 Co-op | Co-op | $\begin{aligned} & \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ | 4 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  | Elective | 4 |
| CS 4800 | 4 |  |  |  |
| CRIM 3600 | 4 |  |  |  |
| Elective 1 |  |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| CRIM 3700 | 4 |  | Elective | 4 |
| CRIM | 4 |  |  |  |
| Elective 2 |  |  |  |  |
| Elective | 4 |  |  | 8 |
| THTR 1170 | 1 |  |  |  |
|  | 17 | 0 | 0 |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| CS Elective 2 | 4 CS Elective 3 | 4 Elective (if needed) | 4 |
| CRIM <br> Elective 3 | 4 CRIM 4949 | 4 Elective (if needed) | 4 |
| CRIM <br> Elective 4 | $\begin{aligned} & 4 \text { CRIM 4040, } \\ & 4630,4640, \\ & 4800 \text {, or } \\ & 4900 \end{aligned}$ | 4 |  |
| SOCL 4528, 3485, 1280, ANTH 3418, PHIL 1145, or IA 5240 | 4 Elective | 4 |  |
|  | 16 | 16 | 8 |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| and CS 2501 |  |  |  |  |  |
| CS 1200 | 1 | CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 | CRIM 2200 | 4 |  |  |
| CRIM 1100 | 4 |  |  |  |  |
|  | 18 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 3200 |  | CS 1210 or CRIM 2000 | 1 | Vacation |  | Co-op |  |
| CS 3500 |  | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |  |  |
| CS 4800 | 4 | CRIM 3700 | 4 |  |  |  |  |
| CRIM 3600 |  | CRIM <br> Elective 1 | 4 |  |  |  |  |
|  |  | CRIM <br> Elective 2 | 4 |  |  |  |  |
|  | 16 |  | 18 |  | 0 |  | 0 |
| Year 3 |  |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op |  | CS Elective 1 |  | $\begin{aligned} & \text { ENGW 3302, } \\ & 3308 \text {, or } \\ & 3315 \end{aligned}$ |  | Co-op |  |
|  |  | CRIM <br> Elective 3 | 4 | Elective | 4 |  |  |


|  |  | SOCL 4528, <br> 3485, 1280, <br> ANTH 3418, <br> PHIL 1145, <br> or IA 5240 | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Elective | 4 |  |  |
|  |  | THTR 1170 | 1 |  |  |
|  | 0 |  | 17 | 8 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  |  | CRIM <br> Elective 4 | 4 Elective | 4 |  |
|  |  | $\begin{aligned} & \text { CRIM 4040, } \\ & 4630,4640, \\ & 4800 \text {, or } \\ & 4900 \end{aligned}$ | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CS Elective 3 | 4 |
|  | CRIM 4949 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 134

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 <br> and CS 1801 | V CS 2510 <br> and CS 2511 | 5 Vacation |  |  |
| CS 2500 <br> and CS 2501 | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 CRIM 2100 | 4 |  |  |
| ENGW 1111 | 4 CRIM 2200 | 4 |  | 0 |
| CRIM 1100 | 4 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1210 or | 1 Co-op | Co-op | Vacation |  |
| CRIM 2000 |  |  |  |  |
| CS 3200 | 4 |  |  |  |
| CS 3500 | 4 |  |  |  |
| CS 4800 | 4 |  | 0 | 0 |
| CRIM 3600 | 4 | 0 | 0 |  |
|  | 17 |  |  |  |

$\left.\begin{array}{lcccr}\text { Year 3 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 2800 } & 5 \text { Co-op } & \text { Co-op } & \text { ENGW 3302, } & 4 \\ \text { and CS 2801 } & & \begin{array}{l}3308, \text { or } \\ \\ \end{array} & & 3315\end{array}\right]$

| CRIM <br> Elective 1 | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| CRIM <br> Elective 2 | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| CRIM | 4 |  | Elective | 4 |
| Elective 3 |  |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| CS Elective 2 | 4 CS Elective 3 | 4 |
| CRIM | 4 CRIM 4949 | 4 |
| Elective 4 |  |  |
| CRIM 4040, | 4 Elective | 4 |
| 4630,4640, |  |  |
| 4800 , or |  | 4 |
| 4900 | 4 Elective | 46 |
| Elective | 16 | 16 |

Total Hours: 134

## Criminal Justice and Political Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Criminal Justice Requirements

Code Title Hours

Criminal Justice Core Requirements

| CRIM 1100 | Introduction to Criminal Justice | 4 |
| :--- | :--- | :--- |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| Thematic Electives |  |  |
| Complete one of the following: | 4 |  |
| CRIM 1300 | The Death Penalty |  |


| CRIM 1400 | Human Trafficking |  |
| :---: | :---: | :---: |
| CRIM 1500 | Corruption, Integrity, and Accountability |  |
| CRIM 1600 | Crimes against Humanity |  |
| CRIM 1700 | Crime, Media, and Politics |  |
| Survey Elective |  |  |
| Complete one of the following: |  | 4 |
| CRIM 3010 to CRIM 3500 |  |  |
| CRIM 3900 | Topics in Criminal Justice and Criminology |  |
| System-Wide Elective |  |  |
| Complete one of the following: |  | 4 |
| CRIM 4010 | Gender, Crime, and Justice |  |
| CRIM 4020 | Race, Crime, and Justice |  |
| CRIM 4030 | Criminal Justice Organization and Management |  |

Computer Science
CS $1100 \quad$ Computer Science and Its Applications 4

Mathematics
Complete one of the following:

| MATH 1215 | Mathematical Thinking |
| :--- | :--- |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |

## Political Science Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |
| POLS 2326 |  | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

## Research Methods and Electives

Complete option A, option B, or option C, below. Note: These options enable the student to take research methods courses (including statistics/quantitative techniques) as either CRIM courses or as POLS courses.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Option A |  |  |
| Research Methods |  |  |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |
| Criminal Justice Electives |  |  |
| Complete two courses in the following range: |  | 8 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complete five courses in the following: |  | 20 |
| POLS 2300 to POLS 5999 |  |  |
| Option B |  |  |
| Research M |  |  |


| POLS 2399 | Research Methods in Political Science | 4 |
| :---: | :---: | :---: |
| POLS 2400 | Quantitative Techniques | 4 |
| Criminal Justice Electives |  |  |
| Complete three courses in the following: |  | 12 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complete four courses in the following: |  | 20 |
| POLS 2300 to POLS 5999 |  |  |
| Option C |  |  |
| Research Methods |  |  |
| Complete one of the following sequences: |  | 8 |
| CRIM 3600 <br> and POLS 2400 | Criminal Justice Research Methods and Quantitative Techniques |  |
| CRIM 3700 and POLS 2399 | Criminal Justice Statistics and Research Methods in Political Science |  |
| Criminal Justice Electives |  |  |
| Complete two courses from the following range: |  | 8 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complte four courses in the following: |  | 20 |
| POLS 2300 to POL | S 5999 |  |

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 602).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Security Studies


## Integrative Requirement

Code Title Hours

Senior Capstone Requirement
$\left.\begin{array}{lll}\text { CRIM 4949 } & \text { Senior Capstone Seminar } \\ \text { or POLS 4701 }\end{array} \quad \begin{array}{l}\text { Political Science Senior Capstone }\end{array}\right]$

Integrative Elective Courses
Complete two of the following: 8

| CRIM 3100 | Criminal Law |
| :--- | :--- |
| CRIM 4100 | Juvenile Law |
| CRIM 4110 | Legal Philosophy |
| CRIM 4120 | Courts and Sentencing |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## Concentrations

| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| :--- | :--- | ---: |
| Coder <br> Complete four of the | Hours |  |
| Collowing: | 16 |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Course |  |  |
| POLS 3415 | Ethnic Political Violence | 4 |
| or POLS 3418 | Nationalism |  |

## Electives

Complete three of the following:

| POLS 2333 | Politics and Film |
| :--- | :--- |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |

POLS $3320 \quad$ Politics and Mass Media

POLS 3324 Law and Society

## CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

CONCENTRATION IN SECURITY STUDIES
Code Title Hours
Complete four of the following: 16

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

## Criminal Justice and Psychology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Criminal Justice Requirements
Code Title Hours

Criminal Justice Core Requirements
CRIM 1100 Introduction to Criminal Justice 4

CRIM $2100 \quad 4$
CRIM $2200 \quad 4$
CRIM $3600 \quad 4$
Thematic Elective
Complete one of the following:
CRIM 1300 The Death Penalty

CRIM 1400 Human Trafficking

| CRIM 1500 | Corruption, Integrity, and Accountability |
| :---: | :---: |
| CRIM 1600 | Crimes against Humanity |
| CRIM 1700 | Crime, Media, and Politics |
| Survey Elective |  |
| Complete one of the following: |  |
| CRIM 3010 | Criminal Violence |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| System-Wide Elective |  |
| Complete one of the following: |  |
| CRIM 4010 | Gender, Crime, and Justice |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4030 | Criminal Justice Organization and Management |
| CRIM 4040 | Crime Prevention |
| Computer Science |  |
| CS 1100 | Computer Science and Its Applications |
| Mathematics |  |
| Complete one of the following: |  |
| MATH 1215 | Mathematical Thinking |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |
| Electives |  |
| Complete three courses from the following range: |  |
| CRIM 4000 t | M 5999 |

Psychology Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introductory Course |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| Statistics |  |  |
| PSYC 2320 | Statistics in Psychological Research | 4 |
| Personality/Social Bases of Behavior |  |  |
| Complete two of the following: |  | 8 |
| PSYC 3400 | Personality |  |
| PSYC 3402 | Social Psychology |  |
| PSYC 3404 | Developmental Psychology |  |
| PSYC 3406 | Abnormal Psychology |  |
| Biological/Cognitive Bases of Behavior |  |  |
| Complete two of the following: |  | 8 |
| $\begin{aligned} & \text { PSYC } 3450 \\ & \text { or PSYC } 3451 \end{aligned}$ | Learning and Motivation Learning Principles and Behavior Analysis |  |
| PSYC 3452 | Sensation and Perception |  |
| PSYC 3458 | Biological Psychology |  |
| PSYC 3464 | Psychology of Language |  |
| PSYC 3466 | Cognition |  |
| Research Experience |  |  |
| Complete one of the | following: | 4 |


| PSYC 4991 | Directed Study Research |
| :--- | :--- |
| PSYC 4600 | Laboratory in Research Design |
| PSYC 4606 | Laboratory in Biological Psychology |
| PSYC 4610 | Laboratory in Psycholinguistics |
| PSYC 4612 | Laboratory in Cognition |
| PSYC 4614 | Laboratory in Social Psychology |
| PSYC 4616 | Laboratory in Personality |
| PSYC 4622 | Laboratory in Sensation and Perception |
| PSYC 4624 | Laboratory in Affective Science |
| PSYC 4626 | Laboratory in Life-Span Emotional |

Psychology Seminar
Complete one of the following: 4
PSYC $4650 \quad$ Seminar in Clinical Case Study
PSYC 4652 Seminar in Ethics in Psychology
PSYC 4654 Seminar in Behavioral Modification
PSYC 4656 Seminar in Biological Psychology
PSYC 4658 Seminar in Psycholinguistics
PSYC 4660 Seminar in Cognition
PSYC 4662 Seminar in Personality
PSYC 4664 Seminar in Social Psychology
PSYC 4666 Seminar in Clinical Psychology
PSYC 4668 Seminar in Sensation and Perception
PSYC 4674 Seminar in Cognitive Neuroscience

## Electives

Complete two PSYC courses. 8

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| CRIM 3040 | Psychology of Crime | 4 |
| or CRIM 4710 | Law and Psychology |  |

## Criminal Justice and Psychology Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## Human Services and Criminal Justice, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Foundation Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to the Major |  |  |
| CRIM 1000 | Criminal Justice at Northeastern | 1 |
| or HUSV 1000 | Human Services at Northeastern |  |
| Criminal Justice Foundation Courses |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 1300 | The Death Penalty | 4 |
| or CRIM 1400 | Human Trafficking |  |
| or CRIM 1500 | Corruption, Integrity, and Accountability |  |
| or CRIM 1600 | Crimes against Humanity |  |
| or CRIM 1700 | Crime, Media, and Politics |  |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |


| Human Services Foundation Courses | 4 |  |
| :--- | :--- | ---: |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |


| Upper-Level Courses |  |  |
| :--- | ---: | :--- |
| Code | Title | Hours |


| Policy Course |  |
| :--- | :--- |
| HUSV 3900 | Introduction to Social Policy |
| Organization Course |  |
| SOCL 3440 | Sociology of Human Service <br> Organizations |
| or CRIM 4030 | Criminal Justice Organization and Management |

## Survey Electives

| Complete two of the following: |  |
| :--- | :--- |
| CRIM 3010 | Criminal Violence |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| CRIM 3900 | Topics in Criminal Justice and |


| Research Methods |  | 4 |
| :--- | :--- | :--- |
| CRIM 3600 | Criminal Justice Research Methods |  |
| or HUSV 3700 | Research Methods for Human Services |  |
| Criminal Justice Elective | 4 |  |
| Complete one of the following: |  |  |
| CRIM 4010 | Gender, Crime, and Justice |  |
| CRIM 4020 | Race, Crime, and Justice |  |
| CRIM 4030 | Criminal Justice Organization and <br> Management |  |
| CRIM 4040 | Crime Prevention |  |
| Statistics |  |  |

Complete one of the following:

| CRIM 3700 | Criminal Justice Statistics |
| :--- | :--- |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |

## Human Services Internship

| Code | Title | Hours |
| :--- | :--- | ---: |
| HUSV 4994 | Human Services Internship | 6 |

## Integrative Course

Code Title Hours

CRIM $4949 \quad$ Senior Capstone Seminar 4
or HUSV 4700
Senior Seminar in Human Services

## Open Electives

Code Title Hours

Complete seven courses. Two of these courses must be in 28
criminal justice and four must be in human services.
Cooperative Education for Criminal Justice
Code Title Hours

Co-op Integration Seminar1/Professional Development
All students should complete one of the following:
CRIM 2000 Co-op Integration Seminar 1
EESH $2000 \quad$ Professional Development for Co-op
Co-op Integration Seminars 2 and 3
Co-op students should complete the following:
4 CRIM $3000 \quad$ Co-op Integration Seminar $2 \quad 1$
CRIM 4000 Co-op Integration Seminar $3 \quad 1$
Non-co-op students should complete an additional 2
semester hours of open elective credit.

## Program Requirement

128 total semester hours required
Plan of Study
Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HUSV 1000 | 1 CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 CS 1100 | 4 |  |  |
| ENGW 1111 | 4 HSVC <br> elective | 4 |  |  |
| MATH 1215 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 2100 | 4 CRIM 2000 | 1 Vacation | 0 Co-op | 0 |
| CRIM 2200 | 4 CJ | 4 |  |  |
|  | concentration <br> elective |  |  |  |
| HSVC <br> intermediate/ <br> advanced <br> undergraduate <br> elective | CJ <br> concentration <br> elective |  |  |  |


| Elective | 4 Elective | 4 |  |  |
| :--- | ---: | ---: | :--- | :--- |
| Elective | 4 |  |  |  |
| 16 | 17 | 0 | 0 |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CRIM 3000 | 1 CRIM 3600 | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | HUSV 3900 | 4 |  |  |
|  | HSVC <br> organization <br> course | 4 |  | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CRIM 4000 | 1 Elective | 4 Co-op | 0 |
|  | CJ system- <br> wide elective | 4 Elective | 4 |  |
|  | ENGW 3315 | 4 |  |  |
|  | Elective | 4 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 HUSV 4994 | 6 |
|  | Elective | 4 |
|  | CRIM 4949 <br> or HUSV <br> 4700 | 4 |
|  | Elective | 4 |
| 0 | 18 |  |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| HUSV 1000 | 1 CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 CS 1100 | 4 |  |  |
| ENGW 1111 | 4 HSVC <br> elective | 4 |  | 0 |
| MATH 1215 | 4 | 16 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 2100 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CRIM 2200 | 4 |  | Elective | 4 |
| CRIM 2000 | 1 |  |  |  |
| HUSV 2300 | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CJ | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| concentration <br> elective |  |  |  |  |
| CJ <br> concentration <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 4 |
| Elective | 4 |  |  |  |
| CRIM 3000 | 1 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 3600 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HSVC <br> organization <br> course | 4 |  |  |  |
| CJ system- <br> wide elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| CRIM 4000 | 1 |  |  | 0 |
|  | 17 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CRIM 3700 | 4 Elective | 4 |
| HUSV 4994 | 6 Elective | 4 |
| ENGW 3315 | 4 CRIM 4949 <br> or HUSV <br> 4700 | 4 |
| Elective | 4 Elective | 4 |
|  | 18 | 16 |

Total Hours: 134

## Criminal Justice, BS/MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Breadth Courses for Criminal Justice

## Computer Science

| CS 1100 | Computer Science and Its Applications |
| :--- | :--- |
| Mathematics | 4 |
| Complete one of the following: | 4 |
| MATH 1215 | Mathematical Thinking |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |
| MATH 1242 | Calculus 2 |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |
| MATH 1340 | Intensive Calculus for Engineers |
| MATH 1341 | Calculus 1 for Science and Engineering |
| MATH 1342 | Calculus 2 for Science and Engineering |

## Criminal Justice Sequence Requirement

Complete three courses from the same department, two of which must be numbered 2000 or above.

## Criminal Justice Major Requirements

## Criminal Justice Core Requirements

| CRIM 1100 | Introduction to Criminal Justice | 4 |
| :--- | :--- | :--- |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |

## Criminal Justice Integrated Learning Core

Introduction to College

| CRIM 1000 Criminal Justice at Northeastern |  |
| :---: | :--- |
| Co-op Integration Seminars |  |
| Co-op students should complete at least two of the following: |  |
| CRIM 2000 | Co-op Integration Seminar 1 (required <br> for the first co-op) |
| CRIM 3000 | Co-op Integration Seminar 2 (required <br> for the first co-op) |
| CRIM 4000 | Co-op Integration Seminar 3 (required if <br> a second co-op is taken) |

Non-co-op students should complete one additional criminal justice elective with credit of at least 4 semester hours.

Senior Capstone
CRIM 4949
Senior Capstone Seminar
4

## Criminal Justice Electives

Thematic Elective
Complete one of the following:

| CRIM 1300 | The Death Penalty |
| :--- | :--- |
| CRIM 1400 | Human Trafficking |
| CRIM 1500 | Corruption, Integrity, and Accountability |
| CRIM 1600 | Crimes against Humanity |
| CRIM 1700 | Crime, Media, and Politics |

Survey Elective
Complete two of the following: 8

| CRIM 3010 | Criminal Violence |
| :--- | :--- |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |


| CRIM 3040 | Psychology of Crime |
| :--- | :--- |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| CRIM 3900 | Topics in Criminal Justice and |
|  | Criminology |

System-Wide Elective
Complete one of the following: 4

| CRIM 4010 | Gender, Crime, and Justice |
| :--- | :--- |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4030 | Criminal Justice Organization and <br> Management |
| CRIM 4040 | Crime Prevention |

## Graduate Course Work to be taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Graduate Electives <br> Complete 12 to 16 semester hours in the following ranges: 12-16 <br> CRIM 7000 to CRIM 7699 <br> CRIM 7800 to CRIM 7996 <br> CRIM 8400 to CRIM 8499

## Program Requirements

128 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Criminal Justice, BS/JD

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, consult your advisor.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Breadth Courses for Criminal Justice

## Computer Science

CS 1100 Computer Science and Its Applications 4

Mathematics
Complete one of the following:

| MATH 1215 | Mathematical Thinking |
| :--- | :--- |
| MATH 1231 | Calculus for Business and Economics |
| MATH 1241 | Calculus 1 |
| MATH 1242 | Calculus 2 |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |
| MATH 1340 | Intensive Calculus for Engineers |
| MATH 1341 | Calculus 1 for Science and Engineering |
| MATH 1342 | Calculus 2 for Science and Engineering |

## Criminal Justice Sequence Requirement

Complete three courses from the same department, two of which must be numbered 2000 or above or complete a minor

| Criminal Justice Major Requirements |  |  |
| :--- | :--- | :--- |
| Criminal Justice Core Requirements |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |

## Criminal Justice Integrated Learning Core Introduction to College

| CRIM $1000 \quad$ Criminal Justice at Northeastern | 1 |
| :--- | :--- |
| Co-op Integration Seminars |  |

Co-op students should complete at least two of the following:

| CRIM 2000 | Co-op Integration Seminar 1 (required <br> for the first co-op) |
| :--- | :--- |
| CRIM 3000 | Co-op Integration Seminar 2 (required <br> for the first co-op) |
| CRIM 4000 | Co-op Integration Seminar 3 (required if <br> a second co-op is taken) |

Non-co-op students should complete one additional criminal justice elective with credit of at least 4 semester hours.

## Senior Capstone

CRIM 4949
Senior Capstone Seminar
4

## Criminal Justice Electives

Thematic Elective
Complete one of the following: 4
CRIM $1300 \quad$ The Death Penalty
CRIM 1400 Human Trafficking
CRIM 1500 Corruption, Integrity, and Accountability
CRIM 1600 Crimes against Humanity
CRIM 1700 Crime, Media, and Politics
Survey Electives
Complete two of the following: 8

| CRIM 3010 | Criminal Violence |
| :--- | :--- |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |


| CRIM 3200 | Juvenile Justice |  |
| :---: | :---: | :---: |
| CRIM 3300 | Corrections |  |
| CRIM 3400 | Security |  |
| CRIM 3500 | Policing |  |
| CRIM 3900 | Topics in Criminal Justice and Criminology |  |
| System-Wide Elective |  |  |
| Complete one of the following: |  | 4 |
| CRIM 4010 | Gender, Crime, and Justice |  |
| CRIM 4020 | Race, Crime, and Justice |  |
| CRIM 4030 | Criminal Justice Organization and Management |  |
| CRIM 4040 | Crime Prevention |  |

## Law Course Work to be taken as an Undergraduate Student

 FOURTH UNDERGRADUATE YEARComplete 34 semester hours of law course work in consultation with your advisor.

## Criminal Justice Credit Requirement

Complete 59 credit hours in the major.

## Program Requirements

132 total semester hours required for the bachelor's degree

## Criminal Justice, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| CRIM 1100 | Introduction to Criminal Justice | 4 |
| :--- | :--- | :--- |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |

## Criminal Justice Electives

Complete two of the following: 8

| CRIM 3010 | Criminal Violence |
| :--- | :--- |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| CRIM 4010 | Gender, Crime, and Justice |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4030 | Criminal Justice Organization and |
| CRIM 4040 | Management |
| CRIM 4100 | Juvenile Law Prevention |
| CRIM 4110 | Legal Philosophy |
| CRIM 4120 | Courts and Sentencing |
| CRIM 4300 | Community-Based Corrections |


| CRIM 4310 | Correctional Intervention |
| :--- | :--- |
| CRIM 4400 | Security Management, Supervision |
| CRIM 4500 | Police Strategy |
| CRIM 4610 | Youth Gangs |
| CRIM 4630 | Political Crime and Terrorism |
| CRIM 4640 | Corporate and White-Collar Crime |
| CRIM 4710 | Law and Psychology |
| GPA Requirement |  |
| 2.000 GPA required in the minor |  |

## Economics

Website (http://www.northeastern.edu/cssh/economics)

## William T. Dickens, PhD

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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 the PlusOne 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 combined majors with business administration, environmental studies, international affairs, mathematics, philosophy, and political science.

Graduates may find jobs in major corporations; financial institutions; nonprofits; NGOs; 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.

## Academic Progression Standards

The following are the requirements to progress in the major:
The following three core courses should be completed first:

| ECON 1115 | Principles of Macroeconomics |
| :--- | :--- |
| ECON 1116 | Principles of Microeconomics |
| MATH 1231 | Calculus for Business and Economics |

The following three core courses should be completed by the 12 end of sophomore year:

| ECON 2315 | Macroeconomic Theory |
| :--- | :--- |
| ECON 2316 | Microeconomic Theory |
| ECON 2350 | Statistics |

Within two semesters of completing the above three courses, 4 one of the following two core courses should be completed:

| ECON 3520 | History of Economic Thought (for BA <br> students) |
| :--- | :--- |
| ECON 3560 | Applied Econometrics (for BS students) |

For BA majors, grades earned in the following five core courses must average to a 2.000 grade-point average (GPA) or better:

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |

For BS majors, grades earned in the following five core courses must average to a 2.000 GPA or better:

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |

After admission to the major, all required economics courses must be taken in the day college.

## PlusOne Program (MA) in Economics

The PlusOne program in economics offers an opportunity for the best of Northeastern's undergraduate economics majors to complete both the undergraduate degree program ( BS or BA ) and the professional program (MA) in economics in less time than if the programs were completed sequentially. Students apply no later than junior year, after all core economics classes have been completed, and begin taking master's course work in their senior year. One additional year of graduate study is required to complete the master's program. Students interested in this option should consult with the departmental advisor.

## Programs

## Bachelor of Arts (BA)

-Economics (p. 609)

- International Affairs and Economics (p. 612)
- Political Science and Economics (p. 616)


## Bachelor of Science (BS)

- Economics (p. 610)
- Economics and Business Administration (p. 621)
- Economics and Mathematics (p. 624)
- Economics and Philosophy (p. 624)
- Environmental Studies and Economics (p. 625)
- Political Science and Economics (p. 619)
- Politics, Philosophy, and Economics (p. 575)


## Dual Degrees

- Economics, BA/MA (p. 626)
- Economics, BS/MA (p. 628)


## Minor

- Economics (p. 629)


## Economics, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Breadth Courses for Economics Major

Calculus

| MATH 1231 | Calculus for Business and Economics | 4 |
| :--- | :--- | ---: |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |

## Economics Major Requirements for BA

| Required Economics Courses |  |  |
| :---: | :---: | :---: |
| Grades in the required economics courses must average a minimum of 2.000 : |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3520 | History of Economic Thought | 4 |
| Senior Seminar |  |  |
| ECON 4692 | Senior Economics Seminar | 4 |

## Experiential Learning Requirement for Economics

Note: ECON 4992 or ECON 4996 can double-count for an economics elective in the major.

Complete one of the following courses, or complete study

[^18]| ECON 4996 | Experiential Education Directed Study |
| :--- | :--- |
| ECON 4970 | Junior/Senior Honors Project 1 |
| ECON 4971 | Junior/Senior Honors Project 2 |

## Economics Electives for BA

Complete five of the following with no more than one at the 20 introductory level:
Introductory
ECON 1200 to ECON 1990
Intermediate
ECON 2990 to ECON 3499

| ECON 3915 | Intermediate Selected Topics in <br> Macroeconomics |
| :--- | :--- |
| ECON 3916 | Intermediate Selected Topics in |
|  | Microeconomics |

Advanced
ECON 3560 Applied Econometrics

ECON 3990 Elective
ECON 4600 to ECON 4681

| ECON 4915 | Advanced Selected Topics in <br> Macroeconomics |
| :--- | :--- |
| ECON 4916 | Advanced Selected Topics in <br> Microeconomics |
| ECON 4970 to ECON 4990 |  |
| ECON 4991 | Research |
| ECON 4992 | Directed Study |
| ECON 4993 | Independent Study |
| ECON 4994 | Internship |
| ECON 4996 | Experiential Education Directed Study |

## Economics Major Credit Requirement

Complete 56 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 1 ECON 1116 | 4 Vacation | 0 Vacation | 0 |
| ECON 1000 | Foreign <br> language <br> core course | 4 |  |  |
| ECON 1115 | 4 Elective | 4 |  |  |
| ENGW 1111 | 4 CS 1100 | 4 |  | 0 |
| MATH 1231 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 3520 | 4 ECON 2316 | 4 Vacation | 0 Co-op | 0 |
| ECON 2350 | 4 ECON | 4 |  |  |
|  | undergraduat <br> elective |  |  |  |


| Foreign <br> language <br> core course | 4 Elective | 4 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Elective | 4 Elective | 4 |  | 0 |
|  | EESH 2000 | 1 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3308 | 4 ECON <br> undergraduate <br> elective | 4 Co-op | 0 |
|  | ECON 2315 | 4 Elective | 4 |  |
|  | ECON <br> undergraduate <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |
| 0 | 16 |  |  |  |



## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 ECON 4692 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours | Economics, BS |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECON 1115 | 4 ECON 1116 | 4 Vacation | 0 Vacation | 0 | Program Requirements |
| ENGW 1111 | 4 CS 1100 | 4 |  |  |  |
| MATH 1231 | 4 Elective | 4 |  |  | Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements. |
| ECON 1000 | 1 Foreign language core course | 4 |  |  |  |
| Foreign | 4 |  |  |  |  |
| language core course |  |  |  |  | University-Wide Requirements <br> All undergraduate students are required to complete the University-Wide Requirements (p. 38). |
|  | 17 | 16 | 0 | 0 |  |
| Year 2 |  |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours | NUpath Requirements |
| ECON 2315 | 4 Co-op | 0 Co-op | 0 ECON <br> undergraduate elective | e 4 | All undergraduate students are required to complete the NUpath Requirements (p. 34). |
| ECON 3520 | 4 |  | Elective | 4 | Calculus |
|  |  |  |  |  | MATH 1231 Calculus for Business and Economics 4 |

## Computer Science

CS 1100

## Economics Major Requirements for BS

Required Economics Courses

| Grades in the required economics courses must average a <br> minimum of 2.000: |  |  |
| :--- | :--- | ---: |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| Senior Seminar |  |  |
| ECON 4692 | Senior Economics Seminar | 4 |

## Experiential Learning Requirement for Economics

Note: ECON 4992 or ECON 4996 can double-count for an economics elective in the major.

Complete one of the following courses, or complete study abroad or co-op:

| ECON 4992 | Directed Study |
| :--- | :--- |
| ECON 4996 | Experiential Education Directed Study |
| ECON 4970 | Junior/Senior Honors Project 1 |
| ECON 4971 | Junior/Senior Honors Project 2 |

## Electives for BS in Economics

Complete seven of the following with no more than two at the
introductory level:

## Introductory ECON 1200 to ECON 1990

## Intermediate

ECON 2990 to ECON 3499

| ECON 3915 | Intermediate Selected Topics in <br> Macroeconomics |
| :--- | :--- |
| ECON 3916 | Intermediate Selected Topics in |


| Advanced |  |
| :--- | :--- |
| ECON 3520 | History of Economic Thought |
| ECON 3990 | Elective |
| ECON 4600 to ECON 4681 |  |
| ECON 4915 | Advanced Selected Topics in <br> Macroeconomics |
| ECON 4916 | Advanced Selected Topics in <br> Microeconomics |
| ECON 4970 to ECON 4990 |  |
| ECON 4991 | Research |
| ECON 4992 | Directed Study |
| ECON 4993 | Independent Study |
| ECON 4994 | Internship |
| ECON 4996 | Experiential Education Directed Study |

## Economics Major Credit Requirement

Complete 64 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ECON 1115 | 4 ECON 1116 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 CS 1100 | 4 |  |  |
| MATH 1231 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
| ECON 1000 | 1 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ECON 2315 | 4 ECON 2316 | 4 Vacation | 0 Co-op | 0 |
| ECON 2350 | 4 ECON undergraduat elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | EESH 2000 | 1 |  |  |
|  | 16 | 17 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3308 | 4 ECON <br> undergraduate <br> elective | 4 Co-op | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 ECON 3560 | 4 ECON <br> undergraduate elective | 4 Co -op | 0 |
|  | ECON undergraduat elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 ECON 4692 | 4 |
|  | ECON <br> undergraduatı <br> elective | 4 |
|  | Elective | 4 |


| Elective | 4 |
| ---: | ---: |
| 0 | 16 |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 1115 | 4 ECON 1116 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 CS 1100 | 4 |  |  |
| MATH 1231 | 4 Elective | 4 |  |  |
| ECON 1000 | 1 Elective | 4 |  |  |
| Elective | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 2315 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| ECON 2350 | 4 |  | ECON <br> undergraduat <br> elective |  |
| Elective | 4 |  | 4 |  |
| Elective | 4 |  | 0 | 8 |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 3308 | 4 Co-op | 0 Co-op | 0 ECON <br> undergraduate elective | 4 |
| ECON <br> undergraduat elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| ECON 2316 | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ECON <br> undergraduatı <br> elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| ECON 3560 | 4 ECON 4692 | 4 |
| ECON | 4 ECON | 4 |
| undergraduatı <br> elective | undergraduatı <br> elective |  |
| Elective | 4 Elective | 4 |


| Elective | 4 Elective | 4 |
| :--- | ---: | ---: |
| 16 | 16 |  |

Total Hours: 130

## International Affairs and Economics, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| International Affairs/Economics at Northeastern |  |  |
| INTL 1000 | International Affairs at Northeastern | 1 |
| or ECON 1000 | Economics at Northeastern |  |
| Required Courses |  | 4 |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1160 | International Relations | 4 |
| ANTH 1101 | Peoples and Cultures |  |

or HIST 2211
The World Since 1945

## Global Dynamics

Complete three of the following courses with one course 10-12 numbered 2000 or above: ${ }^{1}$

| INTL 1185 <br> or AFRS 1185 | Gender in the African Diaspora <br> Gender in the African Diaspora |
| :--- | :--- |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |$|$| Cities in a Global Context |
| :--- | :--- |


| AFAM 2639 | Globalism, Racism, and Human Rights |
| :---: | :---: |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 | International Business and Global Social Responsibility |
| or INTB 1209 | International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |


| PHIL 5001 | Global Justice |
| :---: | :---: |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. International Relations (POLS 1160) may not be used as a global dynamics course.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |


| ANTH 4510 | Anthropology of Africa | 4 | POLS 4917 | Model European Union | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| or INTL 4510 | Anthropology of Africa |  | SOCL 4535 | European Union: Social and Political | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 | Latin America |  |  |
| ENTR 3308 | Business Economic History of South Africa | 4 | AFAM 2301 | Foundations of Black Culture 2 | 4 |
|  |  |  | AFAM 2345 | The Black Experience in the Caribbean | 4 |
| HIST 1180 | African History | 4 | AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 | ANTH 4500 | Latin American Society and Development | 4 |
| HIST 2397 | Modern Africa | 4 |  |  |  |
| MUSC 1128 | Music of Africa | 4 | or INTL 4500 | Latin American Society and Development |  |
| Asia |  |  | CLTR 1505 | Introduction to Latin American Culture | 4 |
| ANTH 4350 | Ethnography of Southeast Asia | 4 | CLTR 1508 | Cuban History and Culture through Film | 4 |
| or INTL 4350 | Ethnography of Southeast Asia |  | CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| ASNS 1150 | East Asian Studies | 4 | CLTR 1240 | Latin American Film | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 | CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
|  |  |  | CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |  |  |  |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 | ENTR 3316 | Microfinance and Economic | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |  | Development in Latin America |  |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 | ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |  |  |  |
| HIST 1252 | Japanese Literature and Culture | 4 | ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |  |  |  |
| HIST 1254 | Mao's China and After | 4 | ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 | HIST 1187 | Introduction to Latin American History | 4 |
| HIST 2351 | Modern Japan | 4 | HIST 1260 | Modern Latin America | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 | LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| HIST 3452 | Global Chinese Migration | 4 | LITR 1260 | Caribbean Literature and Culture | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 | LITR 4655 | Latin American Literature | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 | POLS 3475 | Government and Politics in Latin | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 | e | America |  |
| PHIL 1290 | Chinese Philosophy and Religion | 4 | INTL 1160 | Middle East Studies | 4 |
| PHIL 2394 | Chinese Buddhism | 4 | INTL 2100 | Modern Israel | 4 |
| PHIL 2395 | Japanese Buddhism | 4 | INTL 2200 | America and the Middle East | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 | INTL 2360 | Human Rights in the Middle East | 4 |
| Europe |  |  | INTL 2400 | Politics of Islam and Gender | 4 |
| CLTR 1501 | Introduction to French Culture | 4 | INTL 3250 | Democracy and Development in North | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |  | Africa and the Mediterranean |  |
| CLTR 1504 | Introduction to Spanish Culture | 4 | CLTR 1502 | Introduction to Arabic Culture | 4 |
| CLTR 2280 | French Film and World War II: The | 4 | ECON 1292 | Economic History of the Middle East | 4 |
|  | German Occupation of France |  | HIST 1185 | Introduction to Middle Eastern History | 4 |
| ECON 1293 | European Economic History | 4 | HIST 1290 | Modern Middle East | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 | HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 1270 | Ancient Greece | 4 | HIST 4945 | North African History Abroad | 4 |
| HIST 1271 | Ancient Rome | 4 | JWSS 2500 | Zionism and the Challenges of Jewish | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |  | Statehood |  |
| HIST 2371 | Europe 1870-1921 | 4 | POLS 3465 | Government and Politics in the Middle | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |  | East |  |
| HIST 2376 | The British Empire | 4 | POLS 3470 | Arab-Israeli Conflict | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 | POLS 4915 | Model Arab League | 4 |
|  |  |  | PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| POLS 3435 | Politics and Governance of Europe and | 4 |  |  |  |


| PHIL 1280 | Encountering Islam: Traditions, <br> Debates, and Crosscultural Diversity | 4 |
| :--- | :--- | :--- |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  | 4 |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet | 4 |
| LITR 3503 | Economic History | 4 |
| POLS 3450 | Russian Literature in Translation | 4 |
| POLS 3455 | Gussian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia | 4 |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Breadth Requirements for Economics

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  | 4 |
| MATH 1231 | Calculus for Business and Economics | 4 |
| Computer Science |  | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |


| Economics Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Economics Courses |  |  |
| Grades in the following courses must average a minimum of 2.000: |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3520 | History of Economic Thought | 4 |

## Economics Electives

Complete three of the following courses with a minimum of one numbered 3000 or above. Courses used to satisfy international affairs requirements may not be used as economics electives:

| Code <br> ECON 1230 | Title | Hours |
| :--- | :--- | :--- |
| ECON 1290 | History of the Global Economy |  |
| ECON 1292 | Economic History of the Middle East |  |
| ECON 1293 | European Economic History |  |
| ECON 3404 | International Food Economics and | Policy |
| ECON 3405 | A Critique of Capitalism |  |
| ECON 3406 | Critical Perspectives on Economics |  |
| ECON 3415 | Poverty and Income |  |
| ECON 3422 | Economics of Transportation |  |
| ECON 3423 | Environmental Economics |  |


| ECON 3560 | Applied Econometrics |
| :--- | :--- |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |
| ECON 4650 | Economic Growth and Applications |

## Integrative Requirements

Code Title Hours
Development Economics
ECON 1291 Development Economics 4

Senior Seminar
Complete one of the following with a thesis or project that integrates both international affairs and economics:
ECON 4692 Senior Economics Seminar 4
or INTL $4700 \quad$ Senior Capstone Seminar in International Affairs

## International Affairs and Economics Combined-Major Credit Requirement

Complete 88 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| INTL 1000 | 1 MATH 1231 | 4 Vacation | 0 |  |
| INTL 1101 | 4 ECON 1116 | 4 |  |  |
| ECON 1115 | 4 POLS 1160 | 4 |  |  |
| ENGW 1111 | 4 POLS 1161 | 0 |  |  |
| Foreign <br> language <br> core course | 4 HIST 2211 | 4 |  | 0 |
|  | 17 | 16 | 0 | 0 |


| Year 2 |  |  | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 INTL 3400 | 4 INTL elective | 4 Co-op | 0 |
|  | ECON 2315 | 4 INTL elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |



## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

## Political Science Major Requirements <br> Code Title Hours

Political Science Requirements

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |

Political Theory
Complete one of the following: 4

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 2326 | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Restricted Electives
Complete two of the following:
POLS $3307 \quad$ Public Policy and Administration
POLS 2335 Budgeting and Taxation
POLS $2340 \quad$ Business and Government
POLS $2345 \quad$ Urban Policies and Politics
POLS 2355 Intergovernmental Relations

| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| :--- | :--- |
| POLS 2360 | Politics of Poverty |
| POLS 3405 | International Political Economy |
| POLS 3487 | Politics of Developing Nations |

Political Science Electives
Complete two courses from the following range, or complete a concentration as outlined below:

$$
\text { POLS } 3300 \text { to POLS } 5999
$$

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 617).

- American Political Institutions
- Campaigns and Elections
- International Relations and Diplomacy
- Public Policy

| Economics Major Requirements for BA <br> Code <br> Title | Hours |  |
| :--- | :--- | ---: |
| Breadth Courses |  | 4 |
| MATH 1231 | Calculus for Business and Economics | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |

Required Economics Courses
Grades in the required economics courses and in Quantitative Techniques (POLS 2400) or Statistics (ECON 2350) must average a minimum of 2.000:

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 3520 | History of Economic Thought | 4 |
| Economics Electives |  |  |

## Economics Electives

Complete three of the following. At least one course must be
at or above the intermediate level:

| ECON 1230 | Healthcare and Medical Economics |
| :--- | :--- |
| ECON 1240 | Economics of Crime |
| ECON 1260 | Contested Issues in the U.S. Economy |
| ECON 1270 | Economic Status of Ethnic Minorities |
| ECON 1290 | History of the Global Economy |
| ECON 3404 | International Food Economics and |
| Policy |  |
| ECON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3423 | Environmental Economics |
| ECON 3424 | Law and Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |

## Integrative Requirements

Code Title
Hours

## Senior Seminar/Capstone

| Complete one of the following: |  |
| :--- | :--- |
| ECON 4692 | Senior Economics Seminar |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Quantitative Techniques/Statistics

Complete either of the statistics and departmental elective combinations listed below:

| Code <br> Combination A | Title | Hours |
| :--- | :--- | ---: |
| Statistics |  | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Economics |  | 4 |
| Complete one of the following: |  |  |


| ECON 3404 | International Food Economics and <br> Policy |
| :--- | :--- |
| ECON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |

Code Title Hours

## Combination B

Statistics
ECON 2350 Statistics 4

Political Science
Complete one course from the following range: 4

```
POLS 2401 to POLS 5999
```


## Program Requirement

128 total semester hours required

## Concentrations

CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS
Code Title Hours

Complete four of the following: 16

| POLS 2350 | State and Local Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code
Title
Hours

| With advisor approval, a co-op or internship may be |  |  |
| :--- | :--- | :--- |
| substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

## $\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title Hours }\end{array}$

Experiential/Practicum Requirement
Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three | following: | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |


| POLS 3402 | Survey Research and Polling |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Plan of Study

## Four Years, No Co-op

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| POLS 1155 | 4 POLS 1150 | 4 |  |  |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| ECON 1115 | 4 CS 1100 | 4 |  |  |
| Foreign <br> language <br> core course | 4 ECON 1116 | 4 |  | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1160 | 4 POLS 2400 | 4 Vacation | 0 Vacation | 0 |
| POLS 1161 | 0 ECON 2315 | 4 |  |  |
| ECON <br> undergraduate <br> elective | 4 POLS <br> undergraduate <br> elective | 4 |  |  |
| POLS <br> undergraduat <br> elective | Foreign <br> language <br> core course | 4 |  |  |
| Foreign <br> language <br> core course | 4 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| POLS 2326 | 4 POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 |  |  |
| ECON 2316 | 4 Elective | 4 |  |  |
| ECON <br> undergraduat <br> elective | 4 Elective | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| ECON 3560 | 4 POLS 4701 | 4 |
| POLS intermediate/ advanced undergraduat elective | 4 ECON intermediate/ advanced undergraduat elective | 4 |
| Elective | 4 Elective | 4 |


| Elective | 4 Elective | 4 |
| :--- | :---: | ---: |
| 16 | 16 |  |

Total Hours: 128

## Political Science and Economics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Code | Title | Hours |
| :---: | :---: | :---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| olitical Scien | ricted Electives |  |

Political Science Restricted Electives

| Complete two of the following: |  |
| :---: | :--- |
| POLS 3307 | Public Policy and Administration |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 2357 | Growth and Decline of Cities and <br> POLS 2360 |
| POLS 3405 | Politics of Poverty |
| POLS 3487ernational Political Economy |  |

Political Science Electives
Complete two courses from the following range, or complete a concentration as outlined below:

## POLS 3300 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 620).

- American Political Institutions
- Campaigns and Elections
- International Relations and Diplomacy
- Public Policy


## Economics Major Requirements for BS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Breadth Courses |  |  |
| MATH 1231 | Calculus for Business and Economics | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |

## Required Economics Courses

Grades in the required economics courses and in Quantitative Techniques (POLS 2400) or Statistics (ECON 2350) must average a minimum of 2.000 :
ECON 1115 Principles of Macroeconomics 4
ECON 1116 Principles of Microeconomics 4
ECON 2315 Macroeconomic Theory 4
ECON 2316 Microeconomic Theory 4
ECON 3560 Applied Econometrics 4
Economics Electives
Complete three of the following. At least one course must be 12
numbered ECON 3000 or above:

| ECON 1230 | Healthcare and Medical Economics |
| :--- | :--- |
| ECON 1240 | Economics of Crime |
| ECON 1260 | Contested Issues in the U.S. Economy |
| ECON 1270 | Economic Status of Ethnic Minorities |
| ECON 1290 | History of the Global Economy |
| ECON 3404 | International Food Economics and |
| ECON 3415 | Policy |
| ECON 3420 | Urban Economic Issues and Income |
| ECON 3423 | Environmental Economics |
| ECON 3424 | Law and Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |

## Integrative Requirements

Code Title Hours

## Senior Seminar/Capstone

Complete one of the following:

| ECON 4692 | Senior Economics Seminar |
| :--- | :--- |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Quantitative Techniques/Statistics

Complete either of the statistics and departmental elective combinations listed below:

| Code <br> Combination A | Title | Hours |
| :--- | :--- | :---: |
| Statistics |  |  |
| POLS 2400 | Quantitative Techniques | 4 |
| Economics |  | 4 |


| ECON 3404 | International Food Economics and <br> Policy |
| :--- | :--- |
| ECON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |


| Code Title <br> Combination B  | Hours |  |
| :--- | :--- | ---: |
| Statistics |  |  |
| ECON 2350 Statistics | 4 |  |
| Political Science |  | 4 |
| Complete one course from the following range: |  |  |
| POLS 2401 to POLS 5999 |  |  |
| Program Requirement |  |  |
| 128 total semester hours required |  |  |


| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four | following: | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.

Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |

POLS 3304 Presidential Nominating Process
CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY
Code Title Hours

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International |


| Core Courses |  |
| :--- | :--- |
| Complete three of the following: | 12 |


| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br>  <br> POLS 3445 |
| POLS European Union 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN PUBLIC POLICY <br> Code Title Hours

| Core Requirement |  |  |
| :--- | :--- | :--- |
| POLS 3307 | Public Policy and Administration |  |

Electives
Complete three of the following: 12

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| POLS 1155 | 4 POLS 1150 | 4 |  |  |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |



| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1160 | 4 | POLS 2400 | 4 Vacation | 0 Vacation | 0 |
| POLS 1161 | 0 | ECON 2315 | 4 |  |  |
| ECON undergraduate elective |  | POLS <br> undergrad elective | 4 |  |  |
| undergraduat <br> elective |  |  |  |  |  |
| Elective | 4 |  |  |  |  |
| $\begin{array}{ccc}16 & 16\end{array}$ |  |  |  |  |  |


| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 3315 | 4 | Elective | 4 Vacation | 0 Vacation | 0 |
| POLS 2326 |  | POLS <br> intermed <br> advanced <br> undergra <br> elective | 4 |  |  |
| ECON 2316 | 4 | Elective | 4 |  |  |
| ECON undergraduat elective | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| ECON 3560 | 4 POLS 4701 | 4 |
| POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | ECON <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Economics and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Economics Requirements

Grades in required economics courses must average a minimum GPA of 2.000 .

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| ECON 1000 or BUSN 1102 | Economics at Northeastern Personal Skill Development for Business | 1 |
| Required Economics Courses |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| ECON 2350 or MGSC 2301 | Statistics <br> Business Statistics | 4 |
| Economics Electives |  |  |
| Complete four courses from the following lists with no more than one at the introductory level: |  | 16 |
| Introductory |  |  |
| ECON 1200 to ECON 1990 |  |  |
| Intermediate/Advanced |  |  |
| ECON 2990 to ECON 3499 |  |  |
| ECON 3520 | History of Economic Thought |  |
| ECON 3915 | Intermediate Selected Topics in Macroeconomics |  |
| ECON 3916 | Intermediate Selected Topics in Microeconomics |  |
| ECON 3990 | Elective |  |
| ECON 4600 to ECON 4681 |  |  |
| ECON 4915 to ECON 4916 |  |  |
| ECON 4965 | Undergraduate Teaching Experience 1 |  |
| ECON 4970 to ECON 4990 |  |  |
| ECON 4992 | Directed Study |  |

## Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  | 4 |
| FINA 2201 | Financial Management | 4 |
| Marketing |  | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| Organizational Behavior | 4 |  |
| ORGB 3201 | Organizational Behavior | 4 |
| International Business/Social Responsibility |  |  |
| INTB 1203 | International Business and Global |  |

## Additional Requirements

| Code <br> Mathematics | Title | Hours |
| :--- | :--- | ---: |
| MATH 1231 | Calculus for Business and Economics | 4 |
| or MATH 1341 | Calculus 1 for Science and Engineering |  |

$\left.\begin{array}{|lll}\hline \text { Computer Science } & & \\ \hline \text { CS 1100 } & \text { Computer Science and Its Applications } & 4 \\ \hline \text { Co-op Preparation } & & 1 \\ \hline \text { BUSN 1103 } & \begin{array}{l}\text { Professional Development for Business } \\ \text { Co-op }\end{array} & \\ \text { or EESH 2000 } & \text { Professional Development for Co-op }\end{array}\right]$

## Business Concentration

Complete one of the following business concentrations. Requirements for the concentrations are listed below (p. 622).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Management Information Systems
- Marketing
- Supply Chain Management


## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Economics GPA Requirement

Minimum 2.000 GPA required in all economics courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## Program Requirement

128 total semester hours required

## Concentrations

CONCENTRATION IN ACCOUNTING
Code Title Hours

| Required Courses |  | 4 |
| :--- | :--- | :--- |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 |  |
| Electives |  | 8 |
| Complete two of the following: |  |  |


| ACCT 3403 | Accounting Information Systems |
| :--- | :--- |
| ACCT 3416 | Strategic Cost Analysis for Decision <br> Making |
| ACCT 4412 | Auditing and Other Assurance Services |
| ACCT 4414 | Income Tax Determination and <br> Planning |

## CONCENTRATION IN ENTREPRENEURSHIP AND INNOVATION Code Title <br> Hours

Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |


| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| :---: | :---: | :---: |
| ENTR 3328 | Field Research in Sustainable Business |  |
| ENTR 3338 | Field Research in Sustainable Energy in Iceland |  |
| ENTR 3346 | Family Business in Italy |  |
| ENTR 4510 | New Venture Laboratory Abroad |  |
| ENTR 4514 | Development Practice and Global Citizenship in India |  |
| Introductory Course |  |  |
| ENTR 2301 or ENTR 2303 | Innovation! <br> Entrepreneurial Marketing and Selling | 4 |
| Capstone Course |  |  |
| Complete one of | ollowing: | 4 |
| ENTR 4501 | Business Planning for Technology Ventures |  |
| ENTR 4503 | Business Planning for Small and Medium Enterprises |  |
| ENTR 4506 | Advanced Studies in Social Enterprise |  |
| Electives |  |  |
| Complete two of the following: |  | 8 |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 2215 | Understanding Family Enterprise |  |
| ENTR 2414 | Social Responsibility of Business in an Age of Inequality |  |
| ENTR 3210 | Social Impact Investing: Connecting Compassion and Capital |  |
| ENTR 3212 | Innovation for Social Change |  |
| ENTR 3217 | Global Family Business Leadership |  |
| ENTR 3219 | Microfinance: Fostering Entrepreneurship in the Developing World |  |
| ENTR 3220 | International Entrepreneurship and Innovation |  |
| ENTR 3305 | Business Modeling for Entrepreneurs |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| ENTR 3320 | Base of Pyramid Innovation |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |  |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |  |
| ENTR 3348 | Family Business: A Global Perspective |  |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |  |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |  |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |  |
| ENTR 3520 | Impact Investing and Social Finance |  |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |  |



| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| :--- | :--- |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Economics and Mathematics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| ECON 1000 or MATH 1000 | Economics at Northeastern Mathematics at Northeastern | 1 |
| Required Economics |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| Economics Electives |  |  |
| Complete four eco the introductory | mics electives with not more than two at | 16 |
| Introductory |  |  |
| ECON 1200 to ECON 1990 |  |  |
| Intermediate/Advanced |  |  |
| ECON 2990 to ECON 3499 |  |  |
| ECON 3915 | Intermediate Selected Topics in Macroeconomics |  |
| ECON 3916 | Intermediate Selected Topics in Microeconomics |  |
| ECON 3990 | Elective |  |
| ECON 4600 to ECON 4681 |  |  |
| ECON 4915 to ECON 4916 |  |  |
| ECON 4965 | Undergraduate Teaching Experience 1 |  |
| ECON 4970 to ECON 4990 |  |  |
| ECON 4992 | Directed Study |  |
| ECON 4994 | Internship |  |

## Mathematics Requirements

Code Title Hours

## Required Mathematics

MATH 1365 Introduction to Mathematical
Reasoning

| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| :--- | :--- | :--- |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear | 4 |
|  | Algebra for Engineering |  |
| MATH 2331 | Linear Algebra | 4 |
| MATH 3081 | Probability and Statistics | 4 |

Mathematics Electives
Complete two courses in the following range: 8
MATH 3001 to MATH 4999
The following courses are recommended:

| MATH 3150 | Real Analysis |
| :--- | :--- |
| MATH 4581 | Statistics and Stochastic Processes |

## Breadth Course

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |

## Integrative Requirements

Code Title Hours

Advanced Writing in the Disciplines

| ENGW 3308 | Advanced Writing in the Social <br> Sciences |
| :--- | :--- |

Integrative Course
Complete one of the following: 4
ECON 4692 Senior Economics Seminar
MATH 4025 Applied Mathematics Capstone
MATH 5131 Introduction to Mathematical Methods and Modeling

## Combined-Major GPA/Credit Requirement

Code Title Hours

A GPA of 2.000 is required in the following six courses:

| ECON 1115 | Principles of Macroeconomics |
| :--- | :--- |
| ECON 1116 | Principles of Microeconomics |
| ECON 2315 | Macroeconomic Theory |
| ECON 2316 | Microeconomic Theory |
| ECON 3560 | Applied Econometrics |
| MATH 3081 | Probability and Statistics |

A cumulative GPA of 2.000 is required in all math courses.
A grade of $C$ or higher is required in all math courses numbered MATH 2999 or below; grades below $C$ will not count toward the degree.

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Economics and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Economics Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| Complete one of the following: |  | 1 |
| ECON 1000 | Economics at Northeastern |  |
| PHIL 1000 | Philosophy at Northeastern |  |
| Required Economics Courses |  |  |
| Grades in the following must average a minimum of 2.000: |  |  |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3520 | History of Economic Thought | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| Economics Electives |  |  |
| Complete two of the following with at least one numbered 3000 or above: |  | 8 |
| ECON 1240 | Economics of Crime |  |
| ECON 1281 | Economics of the Creative Industries |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 3405 | A Critique of Capitalism |  |
| ECON 3424 | Law and Economics |  |
| ECON 4681 | Information Economics and Game Theory |  |

## Philosophy Requirements

Code Title Hours

| Philosophy Required Courses |  |
| :--- | :--- |
| PHIL 1115 Introduction to Logic <br> or PHIL 1215 Symbolic Logic | 4 |
| PHIL 2325 | Ancient Philosophy and Political <br> Thought |
| PHIL 2330 | Modern Philosophy |

Advanced Philosophy Elective
Complete one of the following:

| PHIL 3435 | Moral Philosophy |
| :---: | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |
| Additional Electives |  |
| Complete three additional electives in philosophy or religion. |  |
| At least one must be numbered 2000 or above. | 12 |

## Integrative Requirement

## Code Title

Hours
Complete two of the following that have not been used in 8
above requirements:

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 4510 | Philosophy of Science |
| PHIL 4500 | Theory of Knowledge |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate <br> Change |
| PHIL 4992 | Directed Study |

## Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

## Environmental Studies and Economics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p.34).

## Introduction to College

| Code | Title | Hours |
| :--- | :--- | ---: |
| ECON 1000 | Economics at Northeastern | 1 |
| or ENVR 1000 | Marine and Environmental Sciences at |  |
|  | Northeastern |  |

## Economics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  |  |
| MATH 1231 | Calculus for Business and Economics | 4 |
| Computer Science |  | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |

Required Economics Courses
A minimum GPA of 2.000 is required:

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3423 | Environmental Economics | 4 |
| ECON 3560 | Applied Econometrics | 4 |

## Economics Electives

| No more than one course may be at the introductory level (course number 1000-1999). |  |  |
| :---: | :---: | :---: |
| Complete two of the following: |  | 7-8 |
| ECON 1290 | History of the Global Economy |  |
| ECON 1291 | Development Economics |  |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 3420 | Urban Economic Issues |  |
| ECON 3422 | Economics of Transportation |  |
| ECON 3424 | Law and Economics |  |
| ECON 3425 | Energy Economics |  |
| ECON 3440 | Public Finance |  |
| ECON 4635 | International Economics |  |
| ECON 4650 | Economic Growth and Applications |  |
| PPUA 5260 | Ecological Economics |  |

Environmental Studies Requirements
Code Title

Social Science Component


## Integrative Requirements

Code Title

## Hours

Advanced Writing in the Disciplines

| ENGW 3308 | Advanced Writing in the Social <br> Sciences |
| :--- | :--- |
| Integrative Course | 4 |
| Note: Your integrative course and your capstone course |  |
| (below) must be from different departments. | 4 |
| Complete one of the following: | 4 |


| ECON 4692 | Senior Economics Seminar |
| :--- | :--- |
| ENVR 5210 | Environmental Planning |
| ENVR 5250 | Geology and Land-Use Planning |

## Capstone

Note: Your integrative course (above) and your capstone course must be from different departments.
ECON 4692 Senior Economics Seminar

| or ENVR 4997 | Senior Thesis |
| :--- | :--- |
| or ENVS 4997 | Senior Thesis |

Experiential Learning Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| COOP 3945 | Co-op Work Experience |  |
| ECON 4992 | Directed Study |  |
| ENVR 4992 | Directed Study |  |
| ECON 4970 | Junior/Senior Honors Project 1 |  |
| ENVR 4970 | Junior/Senior Honors Project 1 |  |

## Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## Economics, BA/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

## Breadth Courses for Economics Major

## Calculus

| MATH 1231 | Calculus for Business and Economics | 4 |
| :--- | :--- | :--- |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |

## Economics Major Requirements for BA

## Required Economics Courses

Grades in the required economics courses must average a minimum of 2.000:

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |


| ECON 3520 | History of Economic Thought |
| :--- | :--- |
| Senior Seminar |  |
| ECON 4692 | Senior Economics Seminar |

Experiential Learning Requirement for Economics
Note: ECON 4992 or ECON 4996 can double-count for an economics
elective in the major.
Complete one of the following, or complete study abroad or
co-op:

| ECON 4992 | Directed Study |
| :--- | :--- |
| ECON 4996 | Experiential Education Directed Study |
| ECON 4970 | Junior/Senior Honors Project 1 |
| ECON 4971 | Junior/Senior Honors Project 2 |

## Economics Electives for BA

Complete five of the following with no more than one at the
introductory level:

Introductory
ECON 1200 to ECON 1990
Intermediate
ECON 2990 to ECON 3499

| ECON 3915 | Intermediate Selected Topics in <br> Macroeconomics |
| :---: | :--- |
| ECON 3916 | Intermediate Selected Topics in <br> Microeconomics |
| Advanced |  |


| Advanced |  |
| :--- | :--- |
| ECON 3560 | Applied Econometrics |
| ECON 3990 | Elective |


| ECON 4600 to ECON 4681 |  |
| :--- | :--- |
| ECON 4915 | Advanced Selected Topics in <br> Macroeconomics |

ECON 4916 Advanced Selected Topics in Microeconomics

ECON 4970 to ECON 4990
ECON 4991 Research

ECON 4992 Directed Study
ECON 4993 Independent Study
ECON 4994 Internship
ECON 4996 Experiential Education Directed Study
ECON $5105 \quad$ Math and Statistics for Economists
ECON 5110 Microeconomic Theory

## Graduate Course Work to Be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Economics Courses

| ECON 5105 | Math and Statistics for Economists | 4 |
| :--- | :--- | :--- |
| ECON 5110 | Microeconomic Theory | 4 |
| ECON 5120 | Macroeconomic Theory | 4 |
| ECON 5140 | Applied Econometrics | 4 |

## Economics Major Credit Requirement

Complete 72 semester hours in the major.

## Program Requirements

128 total semester hours required for the bachelor's degree

Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Three Co-ops in Spring/Summer
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 1000 | 1 ECON 1116 | 4 Vacation | 0 Vacation | 0 |
| ECON 1115 | 4 CS 1100 | 4 |  |  |
| ENGW 1111 | F Foreign <br> language <br> core course | 4 |  |  |
| MATH 1231 | 4 Elective | 4 |  |  |
| Foreign <br> language <br> core course | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 2350 | 4 Co-op | 0 Co-op | 0 ECON <br> undergraduate <br> elective | 4 |
|  |  |  | Elective | 4 |
| ECON 2316 | 4 |  |  |  |
| ENGW 3308 | 4 |  | 0 | 8 |
| Elective | 4 | 0 |  |  |
|  | 16 |  |  |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| undergraduate <br> elective |  |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 5105 | 4 ECON 4692 | 4 Vacation | 0 Vacation | 0 |
| ECON 5110 | 4 ECON 5120 | 4 |  |  |
| Elective | 4 ECON 5140 | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |


| Year 6 |  |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hours |
| ECON <br> graduate <br> elective | ECON <br> graduate <br> elective | 4 |
| ECON <br> graduate <br> elective | ECON <br> graduate <br> elective | 4 |

Total Hours: 146

## Economics, BS/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Breadth Courses for Economics Major

## Calculus

| MATH 1231 | Calculus for Business and Economics | 4 |
| :--- | :--- | ---: |
| Computer Science |  |  |
| CS 1100 | Computer Science and Its Applications | 4 |

## Economics Major Requirements for BS

Required Economics Courses
Grades in the required economics courses must average a
minimum of 2.000 :

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3560 | Applied Econometrics | 4 |
| Senior Seminar |  |  |
| ECON 4692 | Senior Economics Seminar | 4 |

## Experiential Learning Requirement for Economics

Note: ECON 4992 or ECON 4996 can double-count for an economics elective in the major.

Complete one of the following, or complete study abroad or
ECON 4992 Directed Study

| ECON 4996 | Experiential Education Directed Study |
| :--- | :--- |
| ECON 4970 | Junior/Senior Honors Project 1 |
| ECON 4971 | Junior/Senior Honors Project 2 |

## Electives for BS in Economics

Complete seven of the following with no more than two at the 28 introductory level:

## Introductory <br> ECON 1200 to ECON 1990

Intermediate
ECON 2990 to ECON 3499

| ECON 3915 | Intermediate Selected Topics in <br> Macroeconomics |
| :--- | :--- |
| ECON 3916 | Intermediate Selected Topics in |
|  | Microeconomics |

Advanced
ECON 3520 History of Economic Thought
ECON 3990 Elective

ECON 4600 to ECON 4681

| ECON 4915 | Advanced Selected Topics in <br> Macroeconomics |
| :--- | :--- |
| ECON 4916 | Advanced Selected Topics in <br> Microeconomics |
| ECON 4970 to ECON 4990 |  |
| ECON 4991 | Research |
| ECON 4992 | Directed Study |
| ECON 4993 | Independent Study |
| ECON 4994 | Internship |
| ECON 4996 | Experiential Education Directed Study |
| ECON 5105 | Math and Statistics for Economists |
| ECON 5110 | Microeconomic Theory |
| ECON 5140 | Applied Econometrics |

## Graduate Course Work to Be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Economics Courses

| ECON 5105 | Math and Statistics for Economists | 4 |
| :--- | :--- | :--- |
| ECON 5110 | Microeconomic Theory | 4 |
| ECON 5120 | Macroeconomic Theory | 4 |
| ECON 5140 | Applied Econometrics | 4 |

## Economics Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Three Co-ops in Spring/Summer
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 1000 | 1 ECON 1116 | 4 Vacation | 0 Vacation | 0 |
| ECON 1115 | 4 CS 1100 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |


| MATH 1231 | 4 Elective | 4 |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Elective | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 2315 | 4 Co-op | 0 Co-op | 0 ECON <br> undergraduate <br> elective | 4 |
| ECON 3520 | 4 | Elective | 4 |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EESH 2000 | 1 |  | 0 |  |
|  | 17 | 0 |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ECON 3560 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ECON <br> undergraduat <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |
| Elective | 4 | 0 | 0 |  |
|  | 16 |  |  |  |

Year 5

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 5105 | 4 ECON 4692 | 4 Vacation | 0 Vacation | 0 |
| ECON 5110 | 4 ECON 5120 | 4 |  |  |
| Elective | 4 ECON 5140 | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 | 0 |


| Year 6 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| ECON <br> graduate <br> elective | ECON <br> graduate <br> elective | 4 |
| ECON <br> graduate <br> elective | 4 ECON <br> graduate <br> elective | 4 |
|  | 8 | 8 |

Total Hours: 146

## Economics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Calculus 1

If calculus is not required by your major, complete one of the following courses:

| MATH 1231 | Calculus for Business and Economics <br> (preferred) |
| :--- | :--- |
| MATH 1241 | Calculus 1 |
| MATH 1251 | Calculus and Differential Equations for <br> Biology 1 |
| MATH 1242 | Calculus 2 |
| MATH 1340 | Intensive Calculus for Engineers |
| MATH 1341 | Calculus 1 for Science and Engineering |
| MATH 1252 | Calculus and Differential Equations for <br> Biology 2 |

## Required Courses

Students in the macroeconomics track should complete Macroeconomic Theory (ECON 2315); students in the microeconomics track should complete Microeconomic Theory (ECON 2316):

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| or ECON 2316 | Microeconomic Theory |  |

## Elective Courses

Complete three of the following courses with no more than
one at the introductory level:

| Introductory |  |
| :---: | :---: |
| ECON 1200 to ECON 1990 |  |
| Intermediate |  |
| ECON 2990 to ECON 3499 |  |
| ECON 3915 | Intermediate Selected Topics in Macroeconomics |
| ECON 3916 | Intermediate Selected Topics in Microeconomics |
| Advanced |  |
| ECON 3520 | History of Economic Thought |
| ECON 3560 | Applied Econometrics |
| ECON 3990 | Elective |
| ECON 4600 to ECON 4699 |  |
| ECON 4915 | Advanced Selected Topics in Macroeconomics |
| ECON 4916 | Advanced Selected Topics in Microeconomics |
| ECON 4970 to ECON 4990 |  |
| ECON 4992 | Directed Study |

## GPA Requirement

2.000 GPA required in the minor

## English

Website (http://www.northeastern.edu/english)
Elizabeth Maddock Dillon, PhD
Professor and Chair
405 Lake Hall
617.373.4540
617.373 .2509 (fax)

Linda P. Collins, Administrative Specialist, li.collins@northeastern.edu
Students in the English major study the diverse historical, cultural, and aesthetic contexts of English, American, and other Anglophone literatures. They analyze writing practices and related media from the Middle Ages through the present, from the quill pen to code. They practice a variety of theoretical and methodological approaches to the study of language, rhetoric, writing, and literature.

Students of English develop capacities for reading, analysis, and expression that are in great demand in the workplace and in graduate study, including the ability to interpret and evaluate a variety of texts, to evaluate and produce arguments, and to engage diverse audiences. The major and minors are particularly suitable for students preparing for graduate school or careers in any field that demands analytical ability and well-honed writing skills. For profiles of current students and recent alumni, see the English department (http://www.northeastern.edu/cssh/ english) website.

The English department at Northeastern engages students in the experiential liberal arts across four areas: critical literary studies; digital humanities; writing, rhetoric, and publication; and archival studies and histories of the book. The Department of English offers a major and three minors, as well as several combined majors.

Our minors offer concise engagements with several areas of English studies:

- English-introduces the materials and methods of the field as a whole
- Rhetoric-draws on courses in communication studies as well as English
- Writing-encourages students to develop expertise in creative, professional, and public writing as well as rhetorical theory


## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Preapproved Template Program in English

The Department of English offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/ registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## PlusOne Program (MA) in English

English majors at the end of their sophomore year or the beginning of their junior year may qualify for application to the PlusOne program that combines the BA with the master's degree in English. Students interested in this option should consult with the undergraduate program director in English by the end of the sophomore year.

## Programs

## Bachelor of Arts (BA)

- English (p. 630)
- English and Communication Studies (p. 636)
- English and Cultural Anthropology (p. 638)
- English and Graphic and Information Design (p. 640)
- Linguistics and English (p. 642)
- Media and Screen Studies and English (p. 645)


## Bachelor of Science (BS)

- Biology and English (p. 647)
- Computer Science and English (p. 633)


## Dual Degree

- English, BA/MA (p. 649)


## Minor

- English (p. 652)
- Rhetoric (p. 652)
- Writing (p. 652)


## English, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Major Requirements

## Foundation Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :--- | :--- | ---: |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 | Introduction to Rhetoric | 4 |
| or ENGL 1410 | Introduction to Writing Studies |  |
| Literary Periods |  | 4 |
| Early Literatures |  |  |
| Complete one of the following: |  |  |


| ENGL 2200 | The Bible |
| :---: | :---: |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 3151 | Topics in Early Literatures Abroad |
| ENGL 3607 | Chaucer |
| ENGL 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| ENGL 4000 | Topics in Early Literatures |
| ENGL 4010 | Topics in Shakespeare |
| Seventeenth to Eighteenth Centuries |  |
| Complete one of the | following: 4 |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3618 | Milton |
| ENGL 4020 | Topics in 17th- and 18th-Century Literatures |
| Nineteenth Century |  |
| Complete one of the | followng: 4 |
| ENGL 2260 | Romantic Poetry |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |
| Twentieth to Twenty-First Centuries |  |
| Complete one of the following: |  |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 | Contemporary Israeli Literature and Art Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century Major Figure |
| ENGL 4060 | Topics in 20th- and 21 st-Century Literatures |


| ENGL 4080 | Topics in Film |  |
| :---: | :---: | :---: |
| Comparative Literature |  |  |
| Complete two of the following: |  | 8 |
| ENGL 1120 | Trouble in Utopia |  |
| ENGL 1130 | Animals, Objects, Humans |  |
| ENGL 1450 | Reading and Writing in the Digital Age |  |
| ENGL 1500 | British Literature to 1800 |  |
| ENGL 1501 | British Literature 1800 to Present |  |
| ENGL 1502 | American Literature to 1865 |  |
| ENGL 1503 | American Literature 1865 to Present |  |
| ENGL 1701 | Global Literature 1500 to Present |  |
| ENGL 2370 | The Modern Short Story |  |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| ENGL 4070 | Topics in Genre |  |
| ENGL 4684 | Topics in Postcolonial Literature |  |
| ENGL 4688 | Topics in Comparative Textual Studies |  |
| Theories and Methods |  |  |
| Complete one of the following: |  | 4 |
| ENGL 1160 | Introduction to Rhetoric |  |
| ENGL 1410 | Introduction to Writing Studies |  |
| ENGL 2830 | Literary Theory |  |
| ENGL 3325 | Rhetoric of Law |  |
| ENGL 3340 | Technologies of Text |  |
| ENGL 3381 | The Practice and Theory of Teaching Writing |  |
| ENGL 4100 | Topics in Literary Criticism |  |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |  |
| ENGL 4400 | Opening the Archive |  |
| ENGL 4410 | Research in Rhetoric and Writing |  |
| LING 1150 | Introduction to Language and Linguistics |  |
| LING 2350 | Linguistic Analysis |  |
| LING 3450 | Syntax |  |
| LING 3452 | Semantics |  |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |

## Advanced Writing in the Disciplines

Complete one of the following:

| ENGW 3310 | Advanced Writing in Literature |
| :--- | :--- |
| ENGW 3311 | Advanced Writing for Prelaw |
| ENGW 3313 | Advanced Writing in Education |

Writing

| Complete two of the following: |  |
| :--- | :--- |
| ENGL 2700 | Creative Writing |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3376 | Creative Nonfiction |
| ENGL 3377 | Poetry Workshop |
| ENGL 3378 | Fiction Workshop |
| ENGL 2710 | Style and Editing |
| ENGL 2740 | Writing and Community Engagement |
| ENGL 2770 | Writing to Heal |
| ENGL 3375 | Writing Boston |
| ENGL 3379 | Nonfiction Workshop |
| ENGL 3380 | Topics in Writing |
| ENGL 3382 | Publishing in the 21 st Century |

## Capstone

| ENGL 4710 | Capstone Seminar | 4 |
| :---: | :--- | :---: |
| or ENGL 4720 | Capstone Project |  |

Diversity
Complete one of the following courses, which can also count toward another requirement in the major:

| ENGL 2296 | Early African-American Literature |
| :---: | :---: |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 3663 | The African-American Novel |
| ENGL 4684 | Topics in Postcolonial Literature |
| Electives |  |
| Complete any two ENGL courses, except for First-Year Writing and Advanced Writing in the Disciplines, that has not already been used to fulfill another requirement. The following courses may also be used as electives: |  |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3392 | Gender and Film |
| LING 1150 | Introduction to Language and Linguistics |
| LING 2350 | Linguistic Analysis |
| LING 3450 | Syntax |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |

## Experiential Learning Requirement

4 Complete one course in experiential learning from the list below, an education practicum, or a Dialogues of Civilization experience. (Other study-abroad programs may not be used.) This course can also count toward another requirement in the major.

## Experiential Learning Course Work

| ENGL 2740 | Writing and Community Engagement | 4 |
| :--- | :--- | :---: |
| ENGL 3340 | Technologies of Text | 4 |
| ENGL 3381 | The Practice and Theory of Teaching | 4 |
|  | Writing | 4 |
| ENGL 4400 | Opening the Archive | 4 |
| ENGL 4410 | Research in Rhetoric and Writing | 4 |

## Experiential Learning for Education Minors

Education minors automatically fulfill the experiential learning requirement for English. See the curriculum guide for education. (p. 42)

## Dialogues of Civilization

Complete one Dialogues of Civilization experience. (Other study-abroad programs may not be used.)

## 4 English Major Credit Requirement

Complete 56 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

## Year 1



## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Comparative <br> course <br> elective | 4 <br> Comparative <br> course <br> elective | 4 Vacation | 0 Co-op | 0 |
| Literary <br> period and <br> diversity <br> elective | 4 <br> Foreign <br> language <br> core course | 4 |  |  |
| Elective | 4 <br>  <br>  <br>  <br>  <br>  <br>  <br> Literary <br> period <br> course <br> elective <br> Writing and <br> experiential <br> education <br> elective | 4 | 4 | 0 |



Total Hours: 125

## Computer Science and English, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer ScienceOverview |  |  |
| CS 1200 | Computer Science/Information Science | 1 |
| CS 1210 | Overview 1 | Computer Science/Information Science <br> Overview 2: Co-op Preparation |
|  | 1 |  |

Computer Science Fundamental Courses

| CS 1800 | Discrete Structures <br> and CS 1801 <br> and Recitation for CS 1800 | 4 |
| :--- | :--- | ---: |
| CS 2500 | Fundamentals of Computer Science 1 |  |
| and CS 2501 | and Lab for CS 2500 | 5 |
| CS 2510 | Fundamentals of Computer Science 2 | 5 |
| and CS 2511 | and Lab for CS 2510 |  |
| CS 2800 | Logic and Computation <br> and CS 2801 | and Lab for CS 2800 |$\quad 5$

Computer Science Elective Courses

| IS 2000 | Principles of Information Science | 4 |
| :---: | :--- | :--- |
| or CS 4500 | Software Development |  |

## Computing Focus

Students are required to complete one of the following foci 8 (two courses total).
Focus 1: Natural Language Processing


## English Requirements

Code Title Hours
English Course-Level Requirement
In addition to the capstone, two of the courses chosen from the lists below must be numbered 3000-4999.

## Foundational Courses

ENGL 1400 Introduction to Literary Studies 4
ENGL 1160 Introduction to Rhetoric 4
or ENGL 1410 Introduction to Writing Studies
Diversity
Complete one of the following courses. This course may also 4
be used to fulfill an additional English requirement below:
ENGL 2296 Early African-American Literature
ENGL 2360 Modern African-American Literature
ENGL $3685 \quad$ From Kafka to Kushner: Modern and Contemporary Jewish Literature
or JWSS 3685 From Kafka to Kushner: Modern and Contemporary Jewish Literature

ENGL 2450 Postcolonial Literature
ENGL $2460 \quad$ Multiethnic Literatures of the U.S.
ENGL 2470 Asian-American Literature
ENGL 2480 U.S. Latino/a Literature


| ENGL 2296 | Early African-American Literature |
| :--- | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL 3685 | From Kafka to Kushner: Modern and |
| or JWSS 3685 | Contemporary Jewish Literature <br> From Kafka to Kushner: Modern and Contemporary <br>  |


| ENGL 2450 | Postcolonial Literature |
| :--- | :--- |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |


| ENGL 2490 | Native American Literature |
| :--- | :--- |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |

## Pre-Nineteenth-Century Literature

| Complete one of the | ollowing: 4 |
| :---: | :---: |
| ENGL 1600 | Introduction to Shakespeare |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3151 | Topics in Early Literatures Abroad |
| ENGL 3607 | Chaucer |
| ENGL 3618 | Milton |
| ENGL 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| ENGL 4020 | Topics in 17th- and 18th-Century Literatures |

Nineteenth-Century to Twenty-First-Century Literature

| Complete one of the | ollowing: 4 |
| :---: | :---: |
| ENGL 2260 | Romantic Poetry |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 | Contemporary Israeli Literature and Art Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century Major Figure |
| ENGL 4060 | Topics in 20th- and 21 st-Century Literatures |

## Theories and Methods



## Comparative Literature

Complete one of the following: 4
ENGL $1120 \quad$ Trouble in Utopia
ENGL 1130 Animals, Objects, Humans
ENGL 1450 Reading and Writing in the Digital Age
ENGL 1500 British Literature to 1800
ENGL 1501 British Literature 1800 to Present
ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present
ENGL 2370 The Modern Short Story
ENGL 2380 The Modern Novel
ENGL 2400 Modern Poetry
ENGL 2420 Contemporary Poetry
ENGL 2430 Contemporary Fiction
ENGL 2450 Postcolonial Literature
ENGL $2460 \quad$ Multiethnic Literatures of the U.S.
ENGL 2470 Asian-American Literature
ENGL 2480 U.S. Latino/a Literature
ENGL $2490 \quad$ Native American Literature
ENGL 2510 Horror Fiction
ENGL 2520 Science Fiction
ENGL $2620 \quad$ What Is Nature? (Abroad)
ENGL 3427 The Literature of Science
ENGL 3487 Film and Text Abroad
ENGL 3488 Film and Text
ENGL 3572 Fantasy
ENGL $3582 \quad$ Children's Literature
ENGL 3663 The African-American Novel

## Writing

Complete one of the following:

| ENGL 2700 | Creative Writing |
| :--- | :--- |
| ENGL 2770 | Writing to Heal |
| ENGL 3376 | Creative Nonfiction |


| ENGL 3377 | Poetry Workshop |
| :--- | :--- |
| ENGL 3378 | Fiction Workshop |
| ENGL 2710 | Style and Editing |
| ENGL 2740 | Writing and Community Engagement |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3375 | Writing Boston |
| ENGL 3379 | Nonfiction Workshop |
| ENGL 3380 | Topics in Writing |
| ENGL 3382 | Publishing in the 21st Century |
| English Electives |  |
| Complete additional <br> courses. | 4 |


| LING 1150 | Introduction to Language and <br> Linguistics (May substitute for <br> one ENGL course in this elective <br> requirement.) |
| :--- | :--- |
| Capstone | Capstone Seminar |
| ENGL 4710or ENGL 4720 | Capstone Project |


| Integrative Course Requirement |  |
| :--- | :--- |
| Code | Title |
| ENGL 3340 | Technologies of Text |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses.

| CCIS Computing and Social Issues |
| :--- |
| Code Title <br> Complete one of the following: Hours <br> SOCL 4528 Computers and Society <br> SOCL 3485 Environment, Technology, and Society <br> SOCL 1280 The Twenty-First-Century Workplace <br> ANTH 3418 Wired/Unwired: Cybercultures and <br>  <br> PHIL 1145 <br> Technopolitics  |
| Technology and Human Values |

Computer Science English Requirement
Code $\quad$ Title Hours

| College Writing |  |
| :--- | :--- |
| ENGW 1111 First-Year Writing <br> or ENGW 1102 First-Year Writing for Multilingual Writers | 4 |

Advanced Writing in the Disciplines

| Complete one course from the following: |  |
| :--- | :--- |
| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| ENGW 3309 | Advanced Writing in the Humanities |
| ENGW 3310 | Advanced Writing in Literature |
| ENGW 3315 | Interdisciplinary Advanced Writing in <br> the Disciplines |

## Required General Electives

| Code | Title |
| :--- | ---: | Hours

Hours
4

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Exploring Creative Expression and Innovation
- Writing in the First Year
- Advanced Writing in the Disciplines
- Writing-Intensive in the Major
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

Year 1

| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 1800 and CS 1801 |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 | CS 3500 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 | Elective | 4 |  |
| CS 1200 | 1 | $\begin{aligned} & \text { ENGL } 1160 \\ & \text { or } 1410 \end{aligned}$ | 4 |  |  |  |
| ENGW 1111 | 4 | English <br> Literary <br> Period 1 | 4 |  |  |  |


| ENGL 1400 | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 18 | 18 | 8 | 0 |



## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :--- | :---: | :---: | :---: |
| Co-op | Strand <br> Elective 2 | 4 Elective | 4 Co-op |  |
|  | English <br> Category or <br> Elective | 4 Elective | 4 |  |
|  |  |  |  |  |


| English <br> Category or <br> Elective | 4 |  |  |
| :--- | :---: | :---: | :--- |
| Computing <br> and Social <br> Issues | 4 | 1 | 8 |
| THTR 1170 | 17 | 0 |  |
| 0 |  |  |  |


| English <br> Category or <br> Elective | 4 |  |  |
| :--- | ---: | ---: | ---: |
| THTR 1170 | 1 |  | 0 |
| Elective | 4 | 8 | 0 |


| Year 4 <br> Fall | Hours Spring |  |  |
| :--- | :---: | :---: | ---: |
| Co-op | CS 4500 <br> (or English <br> Category or <br> Elective) | Hours Summer 1 <br> 4 Elective (if <br> needed) | Hours |

Total Hours: 134

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | 4 | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 |  |  |
| CS 1200 |  | ENGL 1160 or 1410 | 4 |  |  |
| ENGW 1111 |  | English Literary Period 1 | 4 |  |  |
| ENGL 1400 | 4 |  |  |  |  |
|  | 18 |  | 18 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 | CS 3200 | 4 Vacation | Co-op |  |
| CS 4800 | 4 | CS 1210 | 1 |  |  |
| English <br> Literary <br> Period 2 | 4 | IS 2000 <br> (or English <br> Category or Elective) | 4 |  |  |
| English Category or Elective | 4 | English <br> Category or Elective | 4 |  |  |
|  |  | ENGL 3340 | 4 |  |  |
|  | 16 |  | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | Strand | 4 ENGW 3302, | 4 Co-op |  |
|  | Elective 1 | 3309,3310, <br> or 3315 |  |  |
|  |  | 4 Elective | 4 |  |
|  | English |  |  |  |
|  | Category or |  |  |  |
|  | Elective |  |  |  |


| Fall | Hours Spring <br> Strand <br> Elective 2 | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | :---: | Hours

Total Hours: 134

## English and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Requirements

Code Title
Hours
English Course-Level Requirement
In addition to the capstone, two of the courses chosen from the lists below must be numbered 3000-4999.
Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :--- | :--- | :--- |
| ENGL 1700 | Global Literature to 1500 | 4 |

\begin{tabular}{|c|c|c|c|}
\hline ENGL 1160
or ENGL 1410 \& Introduction to Rhetoric Introduction to Writing Studies \& ENGL 2291 \& Major Twentieth-Century British Novelists <br>
\hline Diversity \& \& ENGL 2355 \& Modern American Literature <br>
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Complete one of the following courses. This course may also be used to fulfill an additional English requirement below:}} \& ENGL 2360 \& Modern African-American Literature <br>
\hline \& \& ENGL 2410 \& Contemporary American Literature <br>
\hline ENGL 2296 \& Early African-American Literature \& ENGL 2440 \& The Modern Bestseller <br>
\hline ENGL 2360 \& Modern African-American Literature \& ENGL 2600 \& Irish Literary Culture Abroad <br>
\hline ENGL 3685 \& From Kafka to Kushner: Modern and Contemporary Jewish Literature \& ENGL 2610 \& Contemporary Israeli Literature and Art Abroad <br>
\hline \multirow[t]{2}{*}{or JWSS 3685} \& \multirow[t]{2}{*}{From Kafka to Kushner: Modern and Contemporary Jewish Literature} \& or JWSS 2610 \& Contemporary Israeli Literature and Art Abroad <br>
\hline \& \& \multirow[t]{2}{*}{ENGL 3685} \& \multirow[t]{2}{*}{From Kafka to Kushner: Modern and Contemporary Jewish Literature} <br>
\hline ENGL 2450 \& Postcolonial Literature \& \& <br>
\hline ENGL 2460 \& Multiethnic Literatures of the U.S. \& \multirow[t]{2}{*}{or JWSS 3685} \& \multirow[t]{2}{*}{From Kafka to Kushner: Modern and Contemporary Jewish Literature} <br>
\hline ENGL 2470 \& Asian-American Literature \& \& <br>
\hline ENGL 2480 \& U.S. Latino/a Literature \& \multirow[t]{2}{*}{ENGL 3730} \& \multirow[t]{2}{*}{Twentieth- and Twenty-First-Century Major Figure} <br>
\hline ENGL 2490 \& Native American Literature \& \& <br>
\hline ENGL 2760 \& Writing in Global Contexts \& \multirow[t]{2}{*}{ENGL 4060} \& \multirow[t]{2}{*}{Topics in 20th- and 21 st-Century Literatures} <br>
\hline ENGL 3663 \& The African-American Novel \& \& <br>
\hline \multicolumn{2}{|l|}{Pre-Nineteenth-Century Literature} \& \multicolumn{2}{|l|}{Theories and Methods} <br>
\hline \multicolumn{2}{|l|}{Complete one of the following: 4} \& \multicolumn{2}{|l|}{Complete one of the following: 4} <br>
\hline ENGL 1600 \& Introduction to Shakespeare \& ENGL 1160 \& Introduction to Rhetoric <br>
\hline ENGL 2200 \& The Bible \& \multirow[t]{2}{*}{ENGL 2830} \& Introduction to Writing Studies <br>
\hline ENGL 2210 \& Medieval British Literature \& \& Literary Theory <br>
\hline ENGL 2215 \& Shakespeare's Comedies \& ENGL 3325 \& Rhetoric of Law <br>
\hline ENGL 2216 \& Shakespeare's Tragedies \& ENGL 3340 \& Technologies of Text <br>
\hline ENGL 2230 \& Sixteenth-Century British Literature \& ENGL 3381 \& The Practice and Theory of Teaching Writing <br>
\hline ENGL 2240 \& Seventeenth-Century British Literature \& ENGL 4400 \& Opening the Archive <br>
\hline ENGL 2250 \& Eighteenth-Century British Literature \& ENGL 4110 \& Topics in Rhetoric and Writing Studies <br>
\hline ENGL 2295 \& Revolution and Revolt in Early American Literature \& ENGL 4410 \& Research in Rhetoric and Writing <br>
\hline ENGL 2296 \& Early African-American Literature \& LING 1150 \& Introduction to Language and Linguistics <br>
\hline ENGL 3151 \& Topics in Early Literatures Abroad \& LING 2350 \& Linguistic Analysis <br>
\hline ENGL 3607 \& Chaucer \& LING 3450 \& Syntax <br>
\hline ENGL 3618 \& Milton \& LING 3452 \& Semantics <br>
\hline \multirow[t]{4}{*}{ENGL 3678

or JWSS 3678} \& \multirow[t]{2}{*}{Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity} \& LING 3454 \& History of English <br>
\hline \& \& LING 3456 \& Language and Gender <br>
\hline \& \multirow[t]{2}{*}{Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity} \& LING 3458 \& Topics in Linguistics <br>
\hline \& \& \multicolumn{2}{|l|}{Comparative Literature} <br>
\hline \multirow[t]{2}{*}{ENGL 4020} \& \multirow[t]{2}{*}{Topics in 17th-and 18th-Century
Literatures} \& \multicolumn{2}{|l|}{Complete one of the following: 4} <br>
\hline \& \& ENGL 1120 \& Trouble in Utopia <br>
\hline \multicolumn{2}{|l|}{Nineteenth-Century Literature} \& ENGL 1130 \& Animals, Objects, Humans <br>
\hline \multicolumn{2}{|l|}{Complete one of the following: 4} \& ENGL 1450 \& Reading and Writing in the Digital Age <br>
\hline ENGL 2260 \& Romantic Poetry \& ENGL 1500 \& British Literature to 1800 <br>
\hline ENGL 2270 \& Victorian Literature \& ENGL 1501 \& British Literature 1800 to Present <br>
\hline ENGL 2280 \& Nineteenth-Century British Fiction \& ENGL 1502 \& American Literature to 1865 <br>
\hline ENGL 2330 \& The American Renaissance \& ENGL 1503 \& American Literature 1865 to Present <br>
\hline ENGL 2340 \& American Realism \& ENGL 1701 \& Global Literature 1500 to Present <br>
\hline ENGL 3619 \& Emerson and Thoreau \& ENGL 2370 \& The Modern Short Story <br>
\hline ENGL 3720 \& Nineteenth-Century Major Figure \& ENGL 2380 \& The Modern Novel <br>
\hline ENGL 4040 \& Topics in 19th-Century Literatures \& ENGL 2400 \& Modern Poetry <br>
\hline \multicolumn{2}{|l|}{Twentieth- and Twenty-First-Century Literature} \& ENGL 2420 \& Contemporary Poetry <br>
\hline \multicolumn{2}{|l|}{Complete one of the following: 4} \& ENGL 2430 \& Contemporary Fiction <br>
\hline ENGL 2290 \& \multirow[t]{2}{*}{Twentieth-Century British Literature} \& ENGL 2450 \& Postcolonial Literature <br>
\hline \& \& ENGL 2460 \& Multiethnic Literatures of the U.S. <br>
\hline
\end{tabular}

| ENGL 2470 | Asian-American Literature |  |
| :---: | :---: | :---: |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| Writing |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| ENGL 4710 <br> or ENGL 4720 | Capstone Seminar Capstone Project | 4 |

Communication Studies Requirements
Code Title Hours

| Communication Studies Common Requirements |  |  |
| :--- | :--- | :--- |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |

Foundation Course
Complete one of the following:
COMM 1210 Persuasion and Rhetoric
COMM 1310 Classical Foundations of Communication

| COMM 1231 | Principles of Organizational <br> Communication |
| :--- | :--- |
| COMM 1225 | Communication Theory |
| COMM 1255 | Communication in a Digital Age |

## Cluster Course

Complete one of the following:

| COMM 1131 | Sex, Relationships, and Communication |
| :--- | :--- |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2304 | Communication and Gender |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |

Writing-Intensive Courses
Complete two of the following:

| COMM 3201 | Health Communication |
| :--- | :--- |
| COMM 3230 | Interpersonal Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3320 | Political Communication |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br>  <br> COMM 3415 |
| Comm 350nt |  |

## Communication Studies Electives

Complete three additional COMM courses. 12

## Integrative Requirement

Code Title Hours

Integrative English Course
Complete one of the following: 4
ENGL 3325 Rhetoric of Law
ENGL 3340 Technologies of Text
ENGL 3381 The Practice and Theory of Teaching Writing

## Integrative Communication Studies Course

COMM 3415 Communication Criticism 4
or COMM 4602 Contemporary Rhetorical Theory

## Communication Studies Grade Requirements

No more than two grades below a C in communication studies courses may be used to satisfy degree requirements.

## Program Requirement

128 total semester hours required

## English and Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Requirements

Code Title Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from the lists below must be numbered ENGL 3000-ENGL 4999.

## Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :---: | :---: | :---: |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 or ENGL 1410 | Introduction to Rhetoric Introduction to Writing Studies | 4 |
| Diversity |  |  |
| Complete one of the following courses. This course may also be used to fulfill an additional English requirement below: |  | 4 |
| ENGL 2296 | Early African-American Literature |  |
| ENGL 2360 | Modern African-American Literature |  |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3663 | The African-American Novel |  |


| Pre-Nineteenth-Century Literature |  |  |
| :---: | :---: | :---: |
| Complete one of the following: |  | 4 |
| ENGL 1600 | Introduction to Shakespeare |  |
| ENGL 2200 | The Bible |  |
| ENGL 2210 | Medieval British Literature |  |
| ENGL 2215 | Shakespeare's Comedies |  |
| ENGL 2216 | Shakespeare's Tragedies |  |
| ENGL 2230 | Sixteenth-Century British Literature |  |
| ENGL 2240 | Seventeenth-Century British Literature |  |
| ENGL 2250 | Eighteenth-Century British Literature |  |
| ENGL 2295 | Revolution and Revolt in Early American Literature |  |
| ENGL 2296 | Early African-American Literature |  |
| ENGL 3151 | Topics in Early Literatures Abroad |  |
| ENGL 3607 | Chaucer |  |
| ENGL 3618 | Milton |  |


| ENGL/JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |  |
| :---: | :---: | :---: |
| ENGL 4020 | Topics in 17th- and 18th-Century Literatures |  |
| Nineteenth-Century Literature |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2260 | Romantic Poetry |  |
| ENGL 2270 | Victorian Literature |  |
| ENGL 2280 | Nineteenth-Century British Fiction |  |
| ENGL 2330 | The American Renaissance |  |
| ENGL 2340 | American Realism |  |
| ENGL 3619 | Emerson and Thoreau |  |
| ENGL 3720 | Nineteenth-Century Major Figure |  |
| ENGL 4040 | Topics in 19th-Century Literatures |  |

Twentieth- and Twenty-First-Century Literature
Complete one of the following: 4

| ENGL 2290 | Twentieth-Century British Literature |
| :--- | :--- |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL/JWSS 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |

ENGL 3730 Twentieth- and Twenty-First-Century Major Figure
ENGL $4060 \quad$ Topics in 20th- and 21 st-Century Literatures

Theories and Methods
Complete one of the following: 4

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching <br>  <br> Writing |
| ENGL 4100 | Topics in Literary Criticism |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4400 | Opening the Archive |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and |
| LING 2350 | Linguistics |
| LING 3450 | Syntax |
| LING 3452 | Semantics Analysis |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |
| Comparative Literature |  |

Complete one of the following:

| ENGL 1120 | Trouble in Utopia |
| :--- | :--- |
| ENGL 1130 | Animals, Objects, Humans |
| ENGL 1450 | Reading and Writing in the Digital Age |
| ENGL 1500 | British Literature to 1800 |
| ENGL 1501 | British Literature 1800 to Present |

ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present
ENGL 2370 The Modern Short Story
ENGL 2380 The Modern Novel
ENGL 2400 Modern Poetry
ENGL 2420 Contemporary Poetry
ENGL 2430 Contemporary Fiction
ENGL 2450 Postcolonial Literature
ENGL $2460 \quad$ Multiethnic Literatures of the U.S.
ENGL 2470 Asian-American Literature
ENGL $2480 \quad$ U.S. Latino/a Literature
ENGL $2490 \quad$ Native American Literature
ENGL 2510 Horror Fiction
ENGL 2520 Science Fiction
ENGL $2620 \quad$ What Is Nature? (Abroad)
ENGL 3427 The Literature of Science
ENGL 3487 Film and Text Abroad
ENGL $3488 \quad$ Film and Text
ENGL 3572 Fantasy
ENGL $3582 \quad$ Children's Literature
ENGL 3663 The African-American Novel

## Writing

Complete one of the following: 4
ENGL $2700 \quad$ Creative Writing
ENGL 2710 Style and Editing
ENGL $2740 \quad$ Writing and Community Engagement
ENGL 2760 Writing in Global Contexts
ENGL $2770 \quad$ Writing to Heal
ENGL 3376 Creative Nonfiction
ENGL 3377 Poetry Workshop
ENGL 3378 Fiction Workshop
ENGL 3375 Writing Boston
ENGL 3379 Nonfiction Workshop
ENGL $3380 \quad$ Topics in Writing
ENGL $3382 \quad$ Publishing in the 21 st Century

## Capstone

ENGL 4710 Capstone Seminar
or ENGL $4720 \quad$ Capstone Project

## Cultural Anthropology Requirements

Note: A 2.000 GPA is required in all cultural anthropology courses.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Foundation Courses |  | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |

ANTH 3421
Foundations of Anthropological Theory
Area Courses
Additional "area courses" taken may count as anthropology electives.

Complete two of the following:
ANTH 4350 Ethnography of Southeast Asia
ANTH 4500 Latin American Society and Development
ANTH $4505 \quad$ Native North Americans
ANTH 4510 Anthropology of Africa
ANTH 4515 Culture and Politics in Modern India

## Capstone

Students are expected to complete the following course in spring of their senior year:
ANTH 4600 Senior Seminar 4
Anthropology Electives
Complete three 4-semester-hour courses in addition to the
above requirements. One study-abroad course may also count toward this requirement with prior permission from the department.

## Integrative Requirements

Code Title
Hours
One integrative course is required for each discipline. Courses
taken as electives above may not be used as integrative courses.
English Integrative Course
Complete one of the following:

| ENGL 2450 | Postcolonial Literature |
| :--- | :--- |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 4684 | Topics in Postcolonial Literature |

Cultural Anthropology Integrative Courses
Complete one of the following:
ANTH 2300 Reading Culture through Ethnography
ANTH $3421 \quad$ Foundations of Anthropological Theory

## English and Cultural Anthropology Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## English and Graphic and Information Design, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Requirements

Code Title

Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from
the lists below must be numbered 3000-4999.

## Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :---: | :---: | :---: |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 or ENGL 1410 | Introduction to Rhetoric Introduction to Writing Studies | 4 |
| Diversity |  |  |
| Complete one of the following courses. This course may also be used to fulfill an additional English requirement below: |  | 4 |
| ENGL 2296 | Early African-American Literature |  |
| ENGL 2360 | Modern African-American Literature |  |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3663 | The African-American Novel |  |

## Pre-Nineteenth-Century Literature

Complete one of the following:
ENGL 1600 Introduction to Shakespeare
ENGL 2200 The Bible
ENGL 2210 Medieval British Literature
ENGL 2215 Shakespeare's Comedies
ENGL 2216 Shakespeare's Tragedies
ENGL 2230 Sixteenth-Century British Literature
ENGL 2240 Seventeenth-Century British Literature
ENGL 2250 Eighteenth-Century British Literature
ENGL 2295 Revolution and Revolt in Early American
Literature
ENGL 2296 Early African-American Literature
ENGL 3151 Topics in Early Literatures Abroad
ENGL 3607 Chaucer
ENGL 3618 Milton
ENGL/JWSS 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity
ENGL $4020 \quad$ Topics in 17th- and 18th-Century Literatures

## Nineteenth-Century Literature

Complete one of the following: 4

ENGL 2260 Romantic Poetry

ENGL 2270
ENGL 2280
ENGL 2330
ENGL 2340
ENGL 3619
ENGL 3720
ENGL 4040

Victorian Literature

Twentieth- and Twenty-First-Century Literature

| Complete one of the following: |  |
| :--- | :--- |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL/JWSS 2610 Contemporary Israeli Literature and Art |  |
| Abroad |  |

Theories and Methods
Complete one of the following: 4

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |
| ENGL 4400 | Opening the Archive |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and |
| LING 2350 | Linguistics |
| LING 3450 | Syntax |
| LING 3452 | Semantics Analysis |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |

## Comparative Literature

Complete one of the following:
ENGL 1120 Trouble in Utopia
ENGL 1130 Animals, Objects, Humans
ENGL 1450 Reading and Writing in the Digital Age
ENGL 1500 British Literature to 1800
ENGL 1501 British Literature 1800 to Present
ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present

| ENGL 2370 | The Modern Short Story |  |
| :---: | :---: | :---: |
| ENGL 2380 | The Modern Novel |  |
| ENGL 2400 | Modern Poetry |  |
| ENGL 2420 | Contemporary Poetry |  |
| ENGL 2430 | Contemporary Fiction |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENGL 2460 | Multiethnic Literatures of the U.S. |  |
| ENGL 2470 | Asian-American Literature |  |
| ENGL 2480 | U.S. Latino/a Literature |  |
| ENGL 2490 | Native American Literature |  |
| ENGL 2510 | Horror Fiction |  |
| ENGL 2520 | Science Fiction |  |
| ENGL 2620 | What Is Nature? (Abroad) |  |
| ENGL 3427 | The Literature of Science |  |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| Writing |  |  |
| Complete one of the following: |  | 4 |
| ENGL 2700 | Creative Writing |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| ENGL 4710 or ENGL 4720 | Capstone Seminar <br> Capstone Project | 4 |

## Graphic and Information Design Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Art and Design at Northeastern |  |  |
| ARTF 1000 | Art and Design at Northeastern | 1 |
| Art and Design Fundamentals |  |  |
| ARTF 1122 and ARTF 1123 | 2D Fundamentals: Surface and Drawing and 2D Tools | 5 |
| ARTF 2220 and ARTF 2221 | 4D Fundamentals: Sequence and Drawing and 4D Tools | 5 |
| Art and Design History |  |  |
| ARTH 2210 | Modern Art and Design History | 4 |
| ARTH 2215 | History of Graphic Design | 4 |
| Design |  |  |
| ARTG 1250 | Design Process Context and Systems | 4 |
| ARTG 2250 and ARTG 2251 | Typography 1 and Type Tools | 5 |


| ARTG 2252 | Graphic Design 1 | 4 |
| :---: | :---: | :---: |
| ARTG 3350 | Typography 2 | 4 |
| ARTG 3451 | Information Design 1 | 4 |
| Degree Project |  |  |
| ARTG 4550 | Design Degree Project 1 | 4 |
| Art and Design Electives |  |  |
| Complete one of the | ollowing: | 4-5 |
| ARTD 2360 and ARTD 2361 | Photo Basics and Photo Tools |  |
| ARTD 2370 and ARTD 2371 | Animation Basics and Animation Tools |  |
| ARTD 2380 and ARTD 2381 | Video Basics and Video Tools |  |
| ARTG 2260 | Programming Basics |  |
| ARTF 1120 | Observational Drawing |  |
| ARTF 1121 | Conceptual Drawing |  |
| ARTF 1124 and ARTF 1125 | 3D Fundamentals: Structure and Drawing and 3D Tools |  |
| ARTF 2223 and ARTF 2224 | 5D Fundamentals: Experience and Drawing and 5D Tools |  |
| ARTG 2400 and ARTG 2401 | Interaction Design 1: Responsive and Interaction Design Tools |  |
| ARTG 3351 | Time-Based Design |  |
| ARTG 3352 | Interaction Design Basics |  |
| ARTG 3450 | Graphic Design 2 |  |
| ARTG 3460 | Identity and Brand Design |  |
| ARTG 3461 | Service Design |  |
| ARTG 3700 | Interaction Design 2: Mobile |  |
| ARTG 4551 | Design Degree Project 2 |  |
| ARTG 4552 | Information Design 2 |  |
| ARTG 4553 | Environmental Design |  |
| ARTG 4554 | Typography 3 |  |

## Integrative Requirement

| Code | Title | Hours |
| :--- | ---: | ---: |
| Integrative English Course |  |  |
| ENGL 3340 | Technologies of Text | 4 |

## Program Requirement

128 total semester hours required

## Linguistics and English, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Linguistics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Introductory Linguistics |  |  |
| LING 1150 | Introduction to Language and | 4 |
|  | Linguistics |  |

## English Requirements Code Title

Hours

## Literature Backgrounds

ENGL 1700 Global Literature to 1500 4

Literature Survey Courses
Complete three of the following:

| AFAM 3664 | Black Poetry and the Spoken Word |
| :--- | :--- |
| ENGL 1120 | Trouble in Utopia |
| ENGL 1130 | Animals, Objects, Humans |
| ENGL 1450 | Reading and Writing in the Digital Age |
| ENGL 1500 | British Literature to 1800 |
| ENGL 1501 | British Literature 1800 to Present |
| ENGL 1502 | American Literature to 1865 |
| ENGL 1503 | American Literature 1865 to Present |
| ENGL 1701 | Global Literature 1500 to Present |
| ENGL 2370 | The Modern Short Story |
| ENGL 2380 | The Modern Novel |
| ENGL 2400 | Modern Poetry |
| ENGL 2420 | Contemporary Poetry |
| ENGL 2430 | Contemporary Fiction |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2510 | Horror Fiction |
| ENGL 2520 | Science Fiction |
| ENGL 2620 | What Is Nature? (Abroad) |
| ENGL 3427 | The Literature of Science |
| ENGL 3487 | Film and Text Abroad |
| ENGL 3488 | Film and Text |
| ENGL 3572 | Fantasy |
| ENGL 3582 | Children's Literature |
| ENGL 3663 | The African-American Novel |
| ENGL 4684 | Topics in Postcolonial Literature |
| ENGL 4688 | Topics in Comparative Textual Studies |

Shakespeare Course
Complete one of the following: 4
ENGL 1600 Introduction to Shakespeare
ENGL 2215 Shakespeare's Comedies
ENGL 2216 Shakespeare's Tragedies
Literature before 1800
Complete one of the following: 4

| ENGL 1600 | Introduction to Shakespeare |
| :--- | :--- |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3607 | Chaucer |
| ENGL 3618 | Milton |



## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | LING 1150 <br> Foreign <br> language <br> core course | 4 Vacation | 0 Vacation | 0 |
| Elective | 4 LING 2350 | 4 |  |  |
| ENGW 1111 | 4 Literary <br> survey - <br> CINE/ENGL <br> combined | 4 |  |  |
| MATH 1215 | 4 Elective | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Foreign language core course | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| LING 3454 | 4 LING 3450 | 4 |  |  |
| ENGL 1700 | 4 Shakespeare elective | 4 |  |  |
| Elective | 4 LING undergraduat elective | 4 |  |  |
|  | EESC 2000 | 1 |  |  |
|  | 16 | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Literary <br> survey - <br> CINE/ENGL <br> combined | 4 Elective | 4 Co-op | 0 |
|  | LING 3422 | 4 Elective | 4 |  |
|  | ENGW 3315 | 4 |  |  |
|  | Literature <br> before 1800 <br> Elective | 4 | 8 | 0 |


| LING 4970 <br> and LING 4971 | Junior/Senior Honors Project 1 <br> and Junior/Senior Honors Project 2 |  |
| :--- | :--- | :--- |
| Directed Study |  |  |
| LING 4996 | Experiential Education Directed Study |  |

## Junior/Senior Seminar

| Code | Title | Hours |
| :--- | :--- | ---: |
| ENGL 4710 | Capstone Seminar | 4 |
| or ENGL 4720 | Capstone Project |  |
| or LING 4654 | Seminar in Linguistics |  |

## Linguistics and English Combined-Major Credit Requirement

Complete 68 semester hours in the major.

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Co-op |  | Literary survey CINE/ENGL combined | 4 Elective | 4 Co-op | 0 |
|  |  | Literature <br> after 1800 <br> Elective | 4 Elective | 4 |  |
|  |  | LING undergraduate elective | e 4 |  |  |
|  |  | LING 3412 | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |


| Year 5 | Hours Spring | Hours |
| :--- | :---: | :---: |
| Fall | Linguistics <br> elective | 4 |
| Co-op | LING 4654 | 4 |
|  | Foreign <br> language <br> core course <br> LING 4996 | 4 |
| 0 | 16 |  |

Total Hours: 129

## Media and Screen Studies and English, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

Media and Screen Studies Requirements
Code $\quad$ Title Hours

| Introduction to College |  |  |
| :--- | :--- | :--- |
| MSCR 1000 | Media and Screen Studies at | 1 |
|  | Northeastern |  |

Introduction to Media Studies
MSCR $1220 \quad$ Media, Culture, and Society
Introduction to Screen Theory
MSCR $2220 \quad$ Understanding Media and Film

| Media and Screen History | 4 |  |
| :--- | :--- | :--- |
| Complete one of the following: |  |  |
| CINE 2350 | History of Film |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 4208 | TV History | 4 |
| Advanced Theory |  | Theories of Media and Culture |
| MSCR 4623 |  |  |


| Media and Screen Electives | 12 |
| :--- | :--- |
| Complete three of the following: |  |

CINE 2350 History of Film

CINE 2394 Modern Film and Global Culture
CINE 3389 Screenwriting
CINE $3392 \quad$ Gender and Film
CINE 3446 Topics in Documentary Production
CINE $3900 \quad$ Film and Psychoanalysis

| CINE 3920 | Topics in Film Studies |
| :--- | :--- |
| MSCR 1230 | Introduction to Film Production |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen <br>  <br> Studies |
| MSCR 3300 | Media Activism |
| MSCR 3402 | Television and Society |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |
| MSCR 3438 | Celebrity Culture |
| MSCR 3500 | Documentary Storytelling |
| ARTD 3480 | Video: Sound and Image |
| ARTD 3485 | Video Art |
| ARTH 2212 | Survey of the Still and Moving Image |

Advanced Media and Screen Electives
Complete two of the following:

| CINE 3500 | Film Theory |
| :--- | :--- |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| MSCR 4206 | Age, Media, and Representation |
| MSCR 4208 | TV History |
| MSCR 4602 | Media and Democracy |
| MSCR 4610 | The Networked Self |
| MSCR 4622 | Special Topics in Media and Screen <br>  <br> Studies |
| MSCR 4685 | Interactive Documentary |
| MSCR 4970 | Junior/Senior Honors Project 1 |
| MSCR 4971 | Junior/Senior Honors Project 2 |
| MSCR 4991 | Research |
| MSCR 4992 | Directed Study |
| MSCR 4993 | Independent Study |
| MSCR 4996 | Experiential Education Directed Study |
| MSCR 4685 | Interactive Documentary |
| ARTD 4582 |  |
| ARTD 4682 | Video in Context: Video and Social |

## English Requirements for Combined Majors

| Code | Title | Hours |
| :--- | :--- | ---: |
| English Course-Level Requirement |  |  |
| In addition to the capstone, two of the courses chosen from |  |  |
| the lists below must be numbered in the range ENGL 3000- |  |  |
| ENGL 4999. |  |  |
| Foundational Courses |  |  |
| ENGL 1400 | Introduction to Literary Studies | 4 |
| ENGL 1700 | Global Literature to 1500 | 4 |


| ENGL 1160 <br> or ENGL 1410 | Introduction to Rhetoric <br> Introduction to Writing Studies |
| :--- | :--- |
| Diversity |  |
| This course may also be used to fulfill an additional English |  |
| requirement below. |  |

Literature of the Twentieth and Twenty-First Centuries

| Complete one of the following: |  |
| :---: | :--- |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British <br>  <br>  <br> ENGL 2355 Novelists |
| ENGL 2360 | Modern American Literature |


| ENGL 2410 | Contemporary American Literature |
| :--- | :--- |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL/JWSS 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century <br> Major Figure |
| ENGL 4060 | Topics in 20th- and 21st-Century <br> Literatures |

## Theories and Methods

Complete one of the following: 4

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2830 | Literary Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3340 | Technologies of Text |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |
| ENGL 4100 | Topics in Literary Criticism |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4400 | Opening the Archive |
| ENGL 4410 | Research in Rhetoric and Writing |
| LING 1150 | Introduction to Language and |
|  | Linguistics |
| LING 2350 | Linguistic Analysis |
| LING 3450 | Syntax |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |

Comparative Course
Complete one of the following:

| ENGL 1120 | Trouble in Utopia |
| :--- | :--- |
| ENGL 1130 | Animals, Objects, Humans |
| ENGL 1450 | Reading and Writing in the Digital Age |
| ENGL 1500 | British Literature to 1800 |
| ENGL 1501 | British Literature 1800 to Present |
| ENGL 1502 | American Literature to 1865 |
| ENGL 1503 | American Literature 1865 to Present |
| ENGL 1701 | Global Literature 1500 to Present |
| ENGL 2370 | The Modern Short Story |
| ENGL 2380 | The Modern Novel |
| ENGL 2400 | Modern Poetry |
| ENGL 2420 | Contemporary Poetry |
| ENGL 2430 | Contemporary Fiction |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2510 | Horror Fiction |
| ENGL 2520 | Science Fiction |


| ENGL 2620 | What Is Nature? (Abroad) |
| :--- | :--- |
| ENGL 3427 | The Literature of Science |
| ENGL 3487 | Film and Text Abroad |
| ENGL 3488 | Film and Text |
| ENGL 3572 | Fantasy |
| ENGL 3582 | Children's Literature |
| ENGL 3663 | The African-American Novel |
| ENGL 4070 | Topics in Genre |
| ENGL 4684 | Topics in Postcolonial Literature |
| ENGL 4688 | Topics in Comparative Textual Studies |
| Writing |  |
| Complete one of the following: |  |
| ENGL 2700 | Creative Writing |
| ENGL 2770 | Writing to Heal |
| ENGL 3376 | Creative Nonfiction |
| ENGL 3377 | Poetry Workshop |
| ENGL 3378 | Fiction Workshop |
| ENGL 2710 | Style and Editing |
| ENGL 2740 | Writing and Community Engagement |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3375 | Writing Boston |
| ENGL 3379 | Nonfiction Workshop |
| ENGL 3380 | Topics in Writing |
| ENGL 3382 | Publishing in the 21st Century |
| Capstone | Capstone Seminar <br> ENGL 4710 <br> or ENGL 4720$\quad$Capstone Project |


| Integrative Requirement  <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Integrative Courses |  | 4 |
| CINE 3500 | Film Theory | 4 |
| ENGL 1450 | Reading and Writing in the Digital Age | 4 |
| or ENGL 3340 | Technologies of Text |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Biology and English, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses for Biology

| Code | Title | Hours |
| :---: | :---: | :---: |
| Mathematics |  |  |
| MATH 1251 | Calculus and Differential Equations for Biology 1 | 4 |
| Statistics |  |  |
| ENVR 2500 and ENVR 2501 | Biostatistics and Lab for ENVR 2500 | 5 |
| Chemistry |  |  |
| General Chemistry |  |  |
| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| Physics 1 |  |  |
| Complete one of PHYS 1146 are re | following lecture/lab pairs. PHYS 1145/ mended: | 5 |

\(\left.\begin{array}{ll}PHYS 1145 \& Physics for Life Sciences 1 <br>

and PHYS 1146 \& and Lab for PHYS 1145\end{array}\right]\)| PHYS 1151 | Physics for Engineering 1 <br> and PHYS 1152 Lab for PHYS 1151 <br> and PHYS 1153 <br> and Interactive Learning Seminar for <br> PHYS 1151 |
| :--- | :--- |
| PHYS 1161 <br> and PHYS 1162 | Physics 1 <br> and Lab for PHYS 1161 |
| Physics 2 |  |$\quad$| Complete one of the following lecture/lab pairs. PHYS 1147/ |
| :--- | :--- |

PHYS 1148 are recommended:

| PHYS 1147 | Physics for Life Sciences 2 |
| :--- | :--- |
| and PHYS 1148 | and Lab for PHYS 1147 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 <br> and PHYS 1157 | and Lab for PHYS 1155 <br> and Interactive Learning Seminar for <br> PHYS 1155 |
| PHYS 1165 <br> and PHYS 1166 | Physics 2 <br> and Lab for PHYS 1165 |

## Biology Requirements

Code Title Hours

## Introduction to College

| BIOL 1000 | Biology at Northeastern | 1 |
| :---: | :--- | :--- |
| or ENGL 1000 | English at Northeastern |  |

Experiential Learning Introduction
EESC $2000 \quad$ Professional Development for Co-op 1

## Required Biology

Foundations

| BIOL 1107 <br> and BIOL 1108 <br> Inquiries | Foundations of Biology <br> and Lab for BIOL 1107 | 5 |
| :--- | :--- | :---: |
| BIOL 2299 <br> Genetics | Inquiries in Biological Sciences |  |
| BIOL 2301 |  |  |
| and BIOL 2302 | Genetics and Molecular Biology <br> and Lab for BIOL 2301 | 4 |
| Techniques | Techniques in Biology: An Inquiry- <br> BIOL 2309 | 5 |
| Biochemistry | and | 4 |
| BIOL 2323 <br> and BIOL 2324 | 5 |  |

## Biology Elective

| Code | Title | Hours |
| :---: | :---: | :---: |
| Organismal and Population Biology |  |  |
| Complete one of the following: |  | 4-5 |
| BIOL 2321 and BIOL 2322 | Microbiology and Lab for BIOL 2321 | 5 |
| BIOL 2327 | Human Parasitology | 4 |
| EEMB 2302 and EEMB 2303 | Ecology and Lab for EEMB 2302 | 5 |
| EEMB 2400 | Introduction to Evolution | 4 |
| EEMB 2616 and EEMB 2617 | Invertebrate Zoology and Lab for EEMB 2616 | 5 |
| EEMB 2618 and EEMB 2619 | Vertebrate Zoology and Lab for EEMB 2618 | 5 |
| EEMB 2700 and EEMB 2701 | Marine Biology and Lab for EEMB 2700 | 5 |

## English Requirements

## Code Title <br> English Course-Level Requirements

Two of the courses chosen from the lists below must be numbered 3000-4999.
Foundational Courses

| ENGL 1400 | Introduction to Literary Studies | 4 |
| :--- | :--- | :--- |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 | Introduction to Rhetoric | 4 |
| or ENGL 1410 | Introduction to Writing Studies |  |

## Diversity

This course may also be used to fulfill an additional English requirement below.
Complete one of the following:

| ENGL 2296 | Early African-American Literature |
| :--- | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 2450 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| ENGL 2460 | Mostcolonial Literature |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |

ENGL $2760 \quad$ Writing in Global Contexts

## Pre-Nineteenth-Century Literature

Complete one of the following:

| ENGL 1600 | Introduction to Shakespeare |
| :--- | :--- |
| ENGL 2200 | The Bible |
| ENGL 2210 | Medieval British Literature |
| ENGL 2215 | Shakespeare's Comedies |
| ENGL 2216 | Shakespeare's Tragedies |
| ENGL 2230 | Sixteenth-Century British Literature |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3151 | Topics in Early Literatures Abroad |
| ENGL 3607 | Chaucer <br> ENGL 3618Bedrooms and Battlefields: Hebrew <br> ENGL 3678 |
| Bible and the Origins of Sex, Gender, |  |
| ond Ethnicity |  |

Nineteenth-Century Literature
Complete one of the following: 4

| ENGL 2260 | Romantic Poetry |
| :--- | :--- |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |

Twentieth- and Twenty-First-Century Literature
Complete one of the following: 4

| ENGL 2290 | Twentieth-Century British Literature |
| :--- | :--- |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| ENGL 3685 2610 | Contemporary Israeli Literature and Art Abroad |
| or JWSS 3685 Kafka to Kushner: Modern and |  |
| ENGL 3730 | Contemporary Jewish Literature <br> From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature | | Twentieth- and Twenty-First-Century |
| :--- |
| Major Figure |

ENGL 4060
Topics in 20th- and 21 st-Century Literatures

| Theories and Methods |  |  |
| :---: | :---: | :---: |
| Complete one of the following: |  | 4 |
| ENGL 1160 | Introduction to Rhetoric |  |
| ENGL 1410 | Introduction to Writing Studies |  |
| ENGL 2830 | Literary Theory |  |
| ENGL 3325 | Rhetoric of Law |  |
| ENGL 3340 | Technologies of Text |  |
| ENGL 3381 | The Practice and Theory of Teaching Writing |  |
| ENGL 4400 | Opening the Archive |  |
| ENGL 4100 | Topics in Literary Criticism | 4 |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |  |
| ENGL 4410 | Research in Rhetoric and Writing |  |
| LING 1150 | Introduction to Language and Linguistics |  |
| LING 2350 | Linguistic Analysis |  |
| LING 3450 | Syntax |  |
| LING 3452 | Semantics |  |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |

Comparative Literature
Complete one of the following: 4
ENGL $1120 \quad$ Trouble in Utopia
ENGL 1130 Animals, Objects, Humans
ENGL 1450 Reading and Writing in the Digital Age
ENGL 1500 British Literature to 1800
ENGL 1501 British Literature 1800 to Present
ENGL 1502 American Literature to 1865
ENGL 1503 American Literature 1865 to Present
ENGL 1701 Global Literature 1500 to Present
ENGL $2370 \quad$ The Modern Short Story
ENGL 2380 The Modern Novel
ENGL 2400 Modern Poetry
ENGL 2420 Contemporary Poetry
ENGL 2430 Contemporary Fiction
ENGL 2450 Postcolonial Literature
ENGL $2460 \quad$ Multiethnic Literatures of the U.S.
ENGL 2470 Asian-American Literature
ENGL $2480 \quad$ U.S. Latino/a Literature
ENGL $2490 \quad$ Native American Literature
ENGL 2510 Horror Fiction
ENGL 2520 Science Fiction
ENGL 2620 What Is Nature? (Abroad)
ENGL 3427 The Literature of Science
ENGL 3487 Film and Text Abroad
ENGL 3488 Film and Text
ENGL 3572 Fantasy
ENGL 3582 Children's Literature
ENGL 3663 The African-American Novel
ENGL $4070 \quad$ Topics in Genre 4

ENGL 4684 Topics in Postcolonial Literature 4

| ENGL 4688 | Topics in Comparative Textual Studies | 4 |
| :--- | :--- | ---: |
| Writing |  |  |
| Complete one of the following: | 4 |  |
| ENGL 2700 | Creative Writing |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21st Century |  |

## Integrative Courses

| Code |
| :--- |
| Integrative English Course | Hours

## Capstone Requirement

Complete one of the following capstone options:

| Code <br> Biology Capstone | Title | Hours |
| :--- | :--- | ---: |
| BIOL 4701 | Biology Capstone | 4 |
| English Capstone | 4 |  |
| ENGL 4710 <br> or ENGL 4720 | Capstone Seminar <br> Capstone Project | 4 |

## Biology and English Combined-Major GPA Requirement

Minimum 2.000 GPA required in all BIOL courses
Minimum 2.000 GPA required in all ENGL courses

## Program Requirement

128 total semester hours required

## English, BA/MA

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38)

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

English Major Requirements

| Foundation Courses |  | 4 |
| :--- | :--- | ---: |
| ENGL 1400 | Introduction to Literary Studies | 4 |
| ENGL 1700 | Global Literature to 1500 | 4 |
| ENGL 1160 | Introduction to Rhetoric |  |
| or ENGL 1410 | Introduction to Writing Studies |  |
| Literary Periods |  | 4 |
| Early Literatures |  |  |
| Complete one of the following: |  |  |
| ENGL 1600 | Introduction to Shakespeare |  |
| ENGL 2200 | The Bible |  |
| ENGL 2210 | Medieval British Literature |  |
| ENGL 2215 | Shakespeare's Comedies |  |
| ENGL 2216 | Shakespeare's Tragedies |  |
| ENGL 2230 | Sixteenth-Century British Literature |  |
| ENGL 3151 | Topics in Early Literatures Abroad |  |
| ENGL 3607 | Chaucer |  |
| ENGL 3678 | Bedrooms and Battlefields: Hebrew <br> Bible and the Origins of Sex, Gender, <br> and Ethnicity |  |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the <br> Origins of Sex, Gender, and Ethnicity |  |


| Seventeenth to Eighteenth Centuries |  |
| :--- | :--- |
| Complete one of the following: |  |
| ENGL 2240 | Seventeenth-Century British Literature |
| ENGL 2250 | Eighteenth-Century British Literature |
| ENGL 2295 | Revolution and Revolt in Early American <br> Literature |
| ENGL 2296 | Early African-American Literature |
| ENGL 3618 | Milton |
| ENGL 4000 | Topics in Early Literatures |
| ENGL 4010 | Topics in Shakespeare |
| ENGL 4020 | Topics in 17th- and 18th-Century <br> Literatures |

[^19]| Complete one of the | owng: |
| :---: | :---: |
| ENGL 2260 | Romantic Poetry |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |
| Twentieth to Twenty-First Centuries |  |
| Complete one of the following: |  |
| ENGL 2290 | Twentieth-Century British Literature |
| ENGL 2291 | Major Twentieth-Century British Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |
| ENGL 2610 <br> or JWSS 2610 | Contemporary Israeli Literature and Art Abroad <br> Contemporary Israeli Literature and Art Abroad |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| ENGL 3730 | Twentieth- and Twenty-First-Century Major Figure |
| ENGL 4060 | Topics in 20th- and 21st-Century Literatures |
| ENGL 4080 | Topics in Film |
| Comparative Literature |  |
| Complete two of the | following: 8 |
| ENGL 1120 | Trouble in Utopia |
| ENGL 1130 | Animals, Objects, Humans |
| ENGL 1450 | Reading and Writing in the Digital Age |
| ENGL 1500 | British Literature to 1800 |
| ENGL 1501 | British Literature 1800 to Present |
| ENGL 1502 | American Literature to 1865 |
| ENGL 1503 | American Literature 1865 to Present |
| ENGL 1701 | Global Literature 1500 to Present |
| ENGL 2370 | The Modern Short Story |
| ENGL 2380 | The Modern Novel |
| ENGL 2400 | Modern Poetry |
| ENGL 2420 | Contemporary Poetry |
| ENGL 2430 | Contemporary Fiction |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2510 | Horror Fiction |
| ENGL 2520 | Science Fiction |
| ENGL 2620 | What Is Nature? (Abroad) |


| ENGL 3427 | The Literature of Science |  |
| :---: | :---: | :---: |
| ENGL 3487 | Film and Text Abroad |  |
| ENGL 3488 | Film and Text |  |
| ENGL 3572 | Fantasy |  |
| ENGL 3582 | Children's Literature |  |
| ENGL 3663 | The African-American Novel |  |
| ENGL 4684 | Topics in Postcolonial Literature |  |
| ENGL 4070 | Topics in Genre |  |
| Theories and Methods |  |  |
| Complete one of the following: |  | 4 |
| ENGL 1160 | Introduction to Rhetoric |  |
| ENGL 1410 | Introduction to Writing Studies |  |
| ENGL 2830 | Literary Theory |  |
| ENGL 3325 | Rhetoric of Law |  |
| ENGL 3340 | Technologies of Text |  |
| ENGL 3381 | The Practice and Theory of Teaching Writing |  |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |  |
| ENGL 4400 | Opening the Archive |  |
| ENGL 4410 | Research in Rhetoric and Writing |  |
| LING 1150 | Introduction to Language and Linguistics |  |
| LING 2350 | Linguistic Analysis |  |
| LING 3450 | Syntax |  |
| LING 3452 | Semantics |  |
| LING 3454 | History of English |  |
| LING 3456 | Language and Gender |  |
| LING 3458 | Topics in Linguistics |  |
| Advanced Writing in the Disciplines |  |  |
| Complete one of the following: |  | 4 |
| ENGW 3310 | Advanced Writing in Literature |  |
| ENGW 3311 | Advanced Writing for Prelaw |  |
| ENGW 3313 | Advanced Writing in Education |  |
| Writing |  |  |
| Complete two of the following: |  | 8 |
| ENGL 2700 | Creative Writing |  |
| ENGL 2760 | Writing in Global Contexts |  |
| ENGL 2770 | Writing to Heal |  |
| ENGL 3376 | Creative Nonfiction |  |
| ENGL 3377 | Poetry Workshop |  |
| ENGL 3378 | Fiction Workshop |  |
| ENGL 2710 | Style and Editing |  |
| ENGL 2740 | Writing and Community Engagement |  |
| ENGL 3375 | Writing Boston |  |
| ENGL 3379 | Nonfiction Workshop |  |
| ENGL 3380 | Topics in Writing |  |
| ENGL 3382 | Publishing in the 21 st Century |  |
| Capstone |  |  |
| ENGL 4710 or ENGL 4720 | Capstone Seminar Capstone Project | 4 |
| Diversity |  |  |
| Complete one of the following courses, which can also count toward another requirement in the major: |  | 4 |
| ENGL 2296 | Early African-American Literature |  |


| ENGL 2360 | Modern African-American Literature |
| :--- | :--- |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 2450 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| ENGL 2460 | Mostcolonial Literature |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 3663 | The African-American Novel |

## Electives

Complete any two ENGL courses, except for First-Year Writing 8 and Advanced Writing in the Disciplines, that has not already been used to fulfill another requirement. The following courses may also be used as electives:

| CINE 2394 | Modern Film and Global Culture |
| :--- | :--- |
| CINE 3392 | Gender and Film |
| LING 1150 | Introduction to Language and |
| Linguistics |  |
| LING 2350 | Linguistic Analysis |
| LING 3450 | Syntax |
| LING 3452 | Semantics |
| LING 3454 | History of English |
| LING 3456 | Language and Gender |
| LING 3458 | Topics in Linguistics |

## Experiential Learning Requirement

Complete one course in experiential learning from the list below, an education practicum, or a Dialogues of Civilization experience. (Other study-abroad programs may not be used.) This course can also count toward another requirement in the major.

## Experiential Learning Course Work

ENGL $2740 \quad$ Writing and Community Engagement 4
ENGL $3340 \quad$ Technologies of Text 4

ENGL 3381 The Practice and Theory of Teaching 4 Writing
ENGL $4400 \quad$ Opening the Archive 4
ENGL 4410 Research in Rhetoric and Writing 4
ENGL 33754

## Experiential Learning for Education Minors

Education minors automatically fulfill the experiential learning requirement for English. See the curriculum guide for education. (p. 42)

## Dialogues of Civilization

Complete one Dialogues of Civilization experience. (Other
study-abroad programs may not be used.)

## English Major Credit Requirement

Complete 56 semester hours in the major.

## Graduate Courses taken as an Undergraduate Student

Complete four graduate courses in the following range:
ENGL 5000 to ENGL 7999

## Program Requirement

128 total semester hours required
Minimum 3.000 GPA is required in all graduate courses

## English, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Courses taken to fulfill the first-year writing requirement and the Advanced Writing in the Disciplines requirements do not count toward this minor. A total of 16 semester hours is required for the English minor. At least two courses must be taken at Northeastern.

## Introductory Course

Complete one course in the range ENGL 1001 to ENGL 1999.

## English Electives

Complete three English courses, two of which must be in the range ENGL 2000 to ENGL 4999.

## GPA Requirement

2.000 GPA required in the minor

## Rhetoric, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: For communication studies students, only two courses from this minor also count toward communication studies major requirements. Additional courses taken for this minor do not count toward communication studies major requirements.

## Required Elective

$\begin{array}{cl}\text { ENGL 1160 } & \text { Introduction to Rhetoric } \\ \text { or COMM 1210 } & \text { Persuasion and Rhetoric }\end{array}$

## Electives

Note: For English majors, only one course from the major may also count toward this elective section of the minor.
Complete four of the following: 16

| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |
| :--- | :--- |
| COMM 1414 | Great Speakers and Speeches 1, 1630- <br> 1930 |
| COMM 3331 | Argumentation and Debate |
| COMM 3414 | Great Speakers and Speeches 2, 1930- <br> Present |
| COMM 3415 | Communication Criticism |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 4602 | Contemporary Rhetorical Theory |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |

## GPA Requirement

2.000 GPA required in the minor

## Writing, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Theories and Methods

| Complete one of the following: |  |
| :--- | :--- |
| ENGL 1160 | Introduction to Rhetoric |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4410 | Research in Rhetoric and Writing |

## Writing Courses

Complete three of the following:

| ENGL 1160 | Introduction to Rhetoric |
| :--- | :--- |
| ENGL 1410 | Introduction to Writing Studies |
| ENGL 2770 | Writing to Heal |
| ENGL 3325 | Rhetoric of Law |
| ENGL 3381 | The Practice and Theory of Teaching <br> Writing |
| ENGL 4110 | Topics in Rhetoric and Writing Studies |
| ENGL 4410 | Research in Rhetoric and Writing |
| ENGL 2700 | Creative Writing |
| ENGL 2710 | Style and Editing |
| ENGL 2740 | Writing and Community Engagement |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3375 | Writing Boston |
| ENGL 3376 | Creative Nonfiction |
| ENGL 3377 | Poetry Workshop |
| ENGL 3378 | Fiction Workshop |
| ENGL 3379 | Nonfiction Workshop |
| ENGL 3380 | Topics in Writing |
| ENGL 3382 | Publishing in the 21st Century |

## GPA Requirement

2.000 GPA required in the minor

## History

Website (http://www.northeastern.edu/history)
Heather Streets-Salter, PhD
Associate Professor and Chair
249 Meserve Hall
617.373.2660
617.373 .2661 (fax)

Kirsten Bilas, Administrative Assistant, k.bilas@northeastern.edu
History at Northeastern emphasizes the study of local and regional histories as well as of the global exchanges between nations, regions,
and cultures. Knowledge of the past is also about building the future. In a world marked by increasing exchange between peoples, cultures, and societies, history is key to understanding contemporary issues such as the future of democracy, the nature of citizenship and rights, the origins and conduct of war, the foundations of racial and ethnic conflict and tolerance, and poverty and prosperity. At the same time, history teaches crucial skills in analytical thinking, research processes, writing, oral expression, and multimedia presentation.

History majors take three core seminars on historical research and choose from a broad range of courses in historical themes, periods, and regions. Students focus their studies by establishing 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, and students are encouraged to take advantage of numerous options for 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. History majors have worked on co-op in law firms, an art auction house, the State Department, the Massachusetts State House, Newton Public Schools, and the Massachusetts State Archives, among many other institutions.

Undergraduates who plan to teach in public schools may combine history with education courses that can lead to state certification in Massachusetts. History students are also encouraged to take Dialogue of Civilizations courses that engage students in short-term study abroad during the summer.

The Department of History offers a broad-based Bachelor of Arts major and two Bachelor of Science options. One BS option emphasizes training in disciplines outside history. It includes the study of research methods and a minor in fields such as English; economics; political science; sociology; cinema studies; East Asian studies; or women's, gender, and sexuality 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, gender, and sexuality studies.

The Department of History offers qualified undergraduates the opportunity to pursue a BA/MA or BS/MA degree in five years, with the approval of the department. Students with a minimum 3.330 cumulative grade-point average (GPA) and minimum 3.500 GPA in required history courses may apply for admission to the PlusOne BA/MA or BS/MA program in history.

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Preapproved Template Program in History

The Department of History offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/ registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## PlusOne Program (MA) in History

History majors at the end of their sophomore year or the beginning of their junior year may qualify for application to the PlusOne program that combines the BA with the master's degree in history. Students interested in this option should consult with the departmental advisor by the end of the sophomore year.

## Programs <br> Bachelor of Arts (BA)

- History (p. 653)
- Environmental Studies and History (p. 656)


## Bachelor of Science (BS)

- History (p. 657)
- Computer Science and History (p. 660)


## Dual Degrees

- History, BA/MA (p. 664)
- History, BS/MA (p. 666)
- History, BA/JD (p. 668)
- History, BS/JD (p. 668)


## Minor

- History (p. 668)


## History, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## History Major Requirements

## Introductory History

| HIST 1200 | Historical Research and Writing | 1 |
| :--- | :--- | :--- |
| HIST 1201 | First-Year Seminar | 4 |
| Complete two of the following: | 8 |  |


| HIST 1110 | Introduction to World History |
| :---: | :---: |
| HIST 1120 | Public History, Public Memory |
| HIST 1130 | Introduction to the History of the United States |
| ASNS 1150 | East Asian Studies |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| AFAM 1140 | Introduction to African-American History |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |
| History Seminar and Historical Writing |  |
| HIST 2301 <br> and HIST 2302 | The History Seminar and Historical Writing |

## History Cluster

In conjunction with your history advisor, define a history cluster by the first semester of your 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

This course may count toward the history cluster or history elective.
Complete one of the following:

| AFRS 2390 <br> or HIST 2390 | Africa and the World in Early Times <br> Africa and the World in Early Times |
| :--- | :--- |
| AFRS 2391 | Modern African Civilization |
| AFRS 2392 | African Diaspora |
| HIST 2222 | History of Science and Technology |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1218 | Pirates, Planters, and Patriots: Making <br> the Americas, 1492-1804 |
| HIST 1270 | Ancient Greece |
| HIST 1271 | Ancient Rome |
| HIST 1285 | Introduction to Russian Civilization |
| HIST 2310 | Spread of Buddhism |
| HIST 2330 | Colonial and Revolutionary America |
| HIST 2370 | Renaissance to Enlightenment |
| HIST 2375 | The Tudors, the Stuarts, and the Birth of |

## History Outside the United States and Europe

| Complete one of the following: |  |
| :--- | :--- |
| HIST 1150 | East Asian Studies |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| HIST 1206 | Drug Trade and Drug War: History, |
| SIST 1212 | History of Race |
| HIST 1213 | History of Violence |


| HIST 1215 | Origins of Today: Historical Roots of Contemporary Issues |
| :---: | :---: |
| HIST 1246 | World War II in the Pacific |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1256 | Chinese Civilization in Her Eyes |
| HIST 1260 | Modern Latin America |
| HIST 1290 | Modern Middle East |
| HIST 1292 | Jerusalem: Space and Image |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2310 | Spread of Buddhism |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and Korea |
| HIST 2390 | Africa and the World in Early Times |
| HIST 2391 | Modern African Civilization |
| HIST 2394 | Islamic Nationalism |
| HIST 2397 | Modern Africa |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HIST 4610 | Topics in World History |
| HIST 4620 | Topics in Historical Geography |
| HIST 4650 | Topics in Asian History |
| HIST 4660 | Topics in Latin American History |
| HIST 4690 | Topics in African History |
| HIST 4691 | Topics in Middle Eastern History |
| HIST 4942 | East Asian Cultural History Abroad |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad |
| HIST 4945 | North African History Abroad |
| HIST 4994 | Internship in World History |
| Capstone or Project |  |
| Complete one of the following: |  |
| HIST 4701 | Capstone Seminar |
| HIST 4911 | Senior Project 1 |
| HIST 4912 | Senior Project 2 |

## Intermediate/Advanced History Course Requirement

A minimum of three courses from the above requirements must be numbered 2303 or higher. These courses may count toward the history cluster.

## Experiential Learning Requirement

The History Seminar (HIST 2301) fulfills the university's experiential learning requirement.

## History Major Credit Requirement

Complete 46 semester hours in the major.

## Program Requirements

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| HIST 1170 | 4 MATH 1215 | 4 |  |  |
| ENGW 1111 | 4 HIST 1110 | 4 |  |  |
| Elective | Elective | 4 |  |  |
| HIST 1200 | 4 |  | 0 | 0 |
| HIST 1201 | 4 | 16 | 0 |  |
|  | 17 |  |  |  |


| Year 2 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Foreign <br> Foreign <br> language <br> course | language <br> course | 4 Vacation | 0 Co-op |$\quad 0$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | Foreign <br> language <br> course | 4 Elective | 4 Co-op | 0 |


| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fo-op | 0 History <br> cluster <br> course | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
| Elective <br> Upper- <br> division <br> elective | 4 | 4 | 0 |  |
| 0 | 16 | 8 | 0 |  |


| Year 5 |  |  |
| :--- | ---: | ---: |
| Fall | Hours Spring | Hours |
| Co-op | 0 HIST 4701 | 4 |


| Upper- <br> division <br> elective | 4 |  |
| :--- | :---: | :---: |
| History <br> cluster <br> course <br> Elective | 4 |  |
| 0 | 16 |  |
| Total Hours: 130 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1170 | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| Elective | 4 HIST 1110 | 4 |  |  |
| HIST 1200 | 1 Foreign <br> language <br> course | 4 |  | 0 |
| HIST 1201 | 4 | 16 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Foreign language course | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Pre-1800 or history elective | 4 |  | Elective | 4 |
| History elective | 4 |  |  |  |
| Elective | 4 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Foreign <br> language <br> course | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Pre-1800 <br> or history <br> elective | 4 |  | Upper- <br> division <br> elective | 4 |
| History <br> cluster <br> course | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |
|  | 16 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HIST 2301 | 4 |  |  |  |
| HIST 2302 | 1 |  |  |  |
| History <br> elective | 4 |  |  | 0 |
| History <br> cluster <br> course | 4 |  |  |  |
|  | 17 | 0 | 0 | 0 |


| Year 5 | Hours Spring | Hours |
| :--- | ---: | ---: |
| Fall | 4 HIST 4701 | 4 |
| History <br> cluster <br> course | 4 History <br> cluster <br> course | 4 |
| Upper- <br> division <br> elective | 4 Upper- <br> division <br> elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 16 | 16 |


| HIST 1130 | Introduction to the History of the United States | 4 |
| :---: | :---: | :---: |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1201 | First-Year Seminar | 4 |
| HIST 2342 | Environmental History of North America | 4 |
| History Seminar |  |  |
| HIST 2301 and HIST 2302 | The History Seminar and Historical Writing | 5 |
| History/Geographic-Area Electives |  |  |
| Complete two o | ollowing: | 8 |


| ASNS 1150 | East Asian Studies |
| :--- | :--- |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1254 | Mao's China and After |
| HIST 1260 | Modern Latin America |
| History-Area Electives |  |
| Complete four HIST courses, approved by a faculty advisor, <br> focused on an idea or geographic area. These courses must <br> be numbered 2000 or higher. | 16 |

## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Integrative Course |  |  |
| ENVR 3300 Geographic Information Systems <br> and ENVR 3301 and Lab for ENVR 3300 | 5 |  |
| Integrated Elective |  | 4 |
| Complete one of the following: |  |  |
| ENVR 5210 | Environmental Planning |  |
| ENVR 5250 | Geology and Land-Use Planning |  |
| HIST 2222 | History of Science and Technology |  |

## Experiential Learning and Capstone

Environmental Studies Requirements
Code Title Hours

| Science Requirements |  |  |
| :--- | :--- | :--- |
| ENVR 1101 | Environmental Science | 4 |
| ENVR 1202 | History of Earth and Life | 5 |
| and ENVR 1203 | and Interpreting Earth History |  |
| ENVR 1445 | Environment and Humankind | 4 |

Humanities Requirement
PHIL $1180 \quad$ Environmental Ethics
Social Science Requirements
ECON $1116 \quad$ Principles of Microeconomics
POLS 1150 American Government 4

| and POLS 1151 | and Recitation for POLS 1150 |  |
| :--- | :--- | :--- |
| SOCL 1246 | Environment and Society | 4 |

Environmental Studies Electives
Complete two of the following:

| ECON 3423 | Environmental Economics |
| :--- | :--- |
| PHIL 3480 | Environmental Philosophy |
| POLS 2395 | Environmental Politics and Policy |

## History Requirements

## Code Title

Hours
History Requirements

Experiential Learning
Complete an approved activity from either department, combined with reflection in capstone.
Capstone Course
Complete one of the following: 1-4
ENVR 4997 Senior Thesis
or ENVS 4997 Senior Thesis

| ENVR 4900 | Earth and Environmental Science |
| :--- | :--- |
| Capstone |  |

ENVR 4970 Junior/Senior Honors Project 1
HIST 4701 Capstone Seminar

## Combined-Major Credit Requirement

Complete 91 semester hours in the major.

## Program Requirement

128 total semester hours required

## History, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
History Major Requirements
Introductory History

| HIST 1200 | Historical Research and Writing | 1 |
| :--- | :--- | :--- |
| HIST 1201 | First-Year Seminar | 4 |

Complete two of the following: 8

| HIST 1110 | Introduction to World History |
| :--- | :--- |
| HIST 1120 | Public History, Public Memory |


| HIST 1130 | Introduction to the History of the United |
| :--- | :--- |
|  | States |
| ASNS 1150 | East Asian Studies |


| ASNS 1150 | East Asian Studies |
| :--- | :--- |
| HIST 1170 | Europe: Empires, Revolutions, Wars, <br> and Their Aftermath |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| AFAM 1140 | Introduction to African-American |
| HMNS 1103 | Introduction to Women's, Gender, and |

History Seminar and Historical Writing
HIST 2301 The History Seminar
and HIST 2302 and Historical Writing

## History Cluster

In conjunction with your history advisor, define a history cluster by the first semester of your 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
This course may count toward the history cluster or history elective.
Complete one of the following:

| AFRS 2390 | Africa and the World in Early Times |
| :---: | :--- |
| or HIST 2390 | Africa and the World in Early Times |
| AFRS 2391 | Modern African Civilization |
| AFRS 2392 | African Diaspora |
| HIST 2222 | History of Science and Technology |
| HIST 1252 | Japanese Literature and Culture |


| HIST 1218 | Pirates, Planters, and Patriots: Making <br> the Americas, 1492-1804 |
| :--- | :--- |
| HIST 1270 | Ancient Greece |
| HIST 1271 | Ancient Rome |
| HIST 1285 | Introduction to Russian Civilization |
| HIST 2310 | Spread of Buddhism |
| HIST 2330 | Colonial and Revolutionary America |
| HIST 2370 | Renaissance to Enlightenment |
| HIST 2375 | The Tudors, the Stuarts, and the Birth of <br>  |

History Outside the United States and Europe
Complete one of the following: 4

| HIST 1150 | East Asian Studies |
| :--- | :--- |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| HIST 1206 | Drug Trade and Drug War: History, <br> Security, Culture |
| HIST 1212 | History of Race |
| HIST 1213 | History of Violence |
| HIST 1215 | Origins of Today: Historical Roots of |
| HIST 1246 | Contemporary Issues |
| Horld War II in the Pacific |  |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1254 | History of Vietnam Wars |
| HIST 1256 | Mao's China and After |
| HIST 1260 | Modern Latin America |
| HIST 1290 | Modern Middle East |
| HIST 1292 | Jerusalem: Space and Image |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2310 | Spread of Buddhism |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2351 | Modern Japan <br> HIST 2352Dictators and Democracy in Japan and Korea |

HIST 2390 Africa and the World in Early Times
HIST 2391 Modern African Civilization
HIST 2394 Islamic Nationalism
HIST 2397 Modern Africa
HIST $3412 \quad$ Global Environmental History
HIST 3452 Global Chinese Migration
HIST $4610 \quad$ Topics in World History
HIST 4620 Topics in Historical Geography
HIST $4650 \quad$ Topics in Asian History
HIST 4660 Topics in Latin American History
HIST $4690 \quad$ Topics in African History
HIST 4691 Topics in Middle Eastern History
HIST 4942 East Asian Cultural History Abroad

| HIST 4944 | Middle Eastern History and Culture <br> Independent Field Research Abroad |
| :---: | :--- |
| HIST 4945 | North African History Abroad |
| HIST 4994 | Internship in World History |
| Research Methods |  |
| Complete one of the following: |  |
| CS 1100 | Computer Science and Its Applications |
| PHIL 1215 | Symbolic Logic |
| ECON 2350 | Statistics |
| ENVR 5260 | Geographical Information Systems |
| MATH 1180 | Statistical Thinking |
| MATH 2280 | Statistics and Software |
| POLS 2400 | Quantitative Techniques |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |
| Capstone or Project |  |

Requirement for Non-Public History Concentrators
Complete one of the following:
4

| HIST 4701 | Capstone Seminar |
| :--- | :--- |
| HIST 4911 | Senior Project 1 |

HIST 4912 Senior Project 2
Requirement for Public History Concentrators
Public history concentrators satisfy this requirement within the concentration.

## Optional Public History Concentration

Note: Public History, Public Memory (HIST 1120) is a prerequisite for Fieldwork in History 1 (HIST 4903) and Fieldwork in History 2 (HIST 4904).

Public History Courses

| HIST 1120 | Public History, Public Memory | 4 |
| :--- | :--- | :--- |
| HIST 4903 | Fieldwork in History 1 | 4 |
| HIST 4904 | Fieldwork in History 2 | 4 |

Graduate Public History Course
Complete one graduate-level course in public history. See 4 history faculty advisor for an approved list.

## Intermediate/Advanced History Course Requirement

A minimum of three courses from the above requirements must be numbered 2303 or higher. These courses may count toward the history cluster.

## History Major Credit Requirement

Complete 46 semester hours for the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1170 | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| Elective | 4 HIST 1110 | 4 |  |  |
| HIST 1200 | 1 Elective | 4 |  |  |


| HIST 1201 | 4 |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Research <br> methods <br> course | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| Pre-1800 <br> or history <br> elective | 4 Pre-1800 <br> or history <br> elective | 4 |  |  |
| History <br> elective | 4 History <br> cluster <br> course | 4 | 4 Elective | 4 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 HIST 2301 | 4 Minor or free elective | 4 Co-op | 0 |
|  | HIST 2302 | 1 Minor or free elective | 4 |  |
|  | History cluster course | 4 |  |  |
|  | Upper- <br> division <br> elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 17 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 History <br> cluster <br> course | History <br> cluster <br> course | 4 Co-op | 0 |
| Upper- <br> division <br> elective | 4 Minor or free <br> elective | 4 |  |  |
| Minor or free <br> elective | 4 |  |  |  |
|  | Minor or free <br> elective | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 HIST 4701 | 4 |
| Upper- <br> division <br> or minor <br> elective | 4 |  |
|  | Minor or free <br> elective | 4 |
| Minor or free <br> elective | 4 |  |
| Total Hours: 130 |  | 16 |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1170 | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| Elective | 4 HIST 1110 | 4 |  |  |
| HIST 1200 | 1 Foreign <br> language <br> course | 4 |  |  |
| HIST 1201 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Research <br> methods <br> course | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Pre-1800 <br> or history <br> elective | 4 |  |  |  |
| History <br> elective | 4 | Elective | 4 |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |  | Hours

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 2301 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HIST 2302 | 1 |  |  |  |
| History <br> cluster <br> course | 4 |  |  |  |
| Upper- <br> division or <br> minor elect | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| History <br> cluster | 4 HIST 4701 | 4 |
| course |  |  |


| Upper- <br> division <br> or minor <br> elective | 4Upper- <br> division <br> or minor <br> elective | 4 |
| :--- | :---: | :--- |
| Minor or free <br> elective | 4 <br> Minor or free <br> elective | 4 |
| Minor or free <br> elective | 4Minor or free <br> elective | 4 |
|  | 16 | 16 |

Total Hours: 130

## History, BS with Concentration in Public History

FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1170 | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| BS core <br> course | 4 HIST 1110 | 4 |  |  |
| HIST 1200 | 1 <br> BS core <br> course | 4 |  |  |
| HIST 1201 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Research methods course | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| Pre-1800 or history elective | 4 Pre-1800 or history elective | 4 |  |  |
| Public history elective | 4 History cluster course | 4 |  |  |
| BS core course | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 3

| Fall <br> Co-op | Hours Spring <br> 0 HIST 2301 | Hours Summer 1 <br> 4 Elective | Hours Summer 2 <br> 4 Co-op | Hours |
| :---: | :---: | :---: | :---: | :---: |
|  | HIST 2302 | 1 Minor or free elective | 4 |  |
|  | History cluster course | 4 |  |  |
|  | HIST 4903 | 4 |  |  |
|  | Upperdivision elective | 4 |  |  |
|  | 0 | 17 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 History cluster course | 4 History cluster course | 4 Co-op | 0 |
|  | HIST 4904 | 4 Minor or free elective | 4 |  |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 HIST 4701 | 4 |
|  | HIST <br> graduate <br> elective | 4 |
|  | Minor or free <br> elective | 4 |
|  | Minor or free <br> elective | 4 |
| 0 | 16 |  |

Total Hours: 130

## FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1170 | 4 HIST 1130 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 MATH 1215 | 4 |  |  |
| Elective | 4 HIST 1110 | 4 |  |  |
| HIST 1200 | 1 Elective | 4 |  |  |
| HIST 1201 | 4 | 16 | 0 | 0 |

Year 2
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \begin{array}{l}\text { Research } \\ \text { methods } \\ \text { course }\end{array} & 4 \text { Co-op }\end{array} \quad \begin{array}{c}0 \text { Co-op }\end{array}\right)$

| Year 3 |  |  | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 2301 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HIST 2302 | 1 |  |  |  |


| History cluster course | 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 4903 | 4 |  |  |  |  |
| Minor or free elective | 4 |  |  |  |  |
|  | 17 |  | 0 | 0 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| History cluster course |  | HIST 4701 | 4 |  |  |
| HIST 4904 |  | HIST <br> graduate elective | 4 |  |  |
| Minor or free elective |  | Minor or free elective | 4 |  |  |
| Minor or free elective |  | Minor or free elective | 4 |  |  |
|  | 16 |  | 16 |  |  |
| Total Hours: 130 |  |  |  |  |  |
| Computer Science and History, BS |  |  |  |  |  |

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

Code Title Hours Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| CS 1800 and CS 1801 | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| CS 2510 and CS 2511 | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |


| CS $4800 \quad$ Algorithms and Data | 4 |
| :---: | :---: |
| IS $2000 \quad$ Principles of Information Science | 4 |
| Computer Science Elective Courses |  |
| Complete three upper-division computer science courses from the following ranges: | 12 |
| CS 2500 to CS 7999, but not CS 5010 |  |
| IS 2000 to IS 7999, but not IS 4900 |  |
| DS 2000 to DS 7999, but not DS 4900 |  |
| Presentation Requirement |  |
| THTR 1170 The Eloquent Presenter | 1 |

## History Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| History Required Courses |  |  |
| HIST 1200 | Historical Research and Writing | 1 |
| HIST 1201 | First-Year Seminar | 4 |
| HIST 2301 | The History Seminar | 4 |
| HIST 2302 | Historical Writing | 1 |
| History Electives |  |  |
| Complete one introductory course from the following: |  | 4 |
| AFAM 1140 | Introduction to African-American History |  |
| ASNS 1150 | East Asian Studies |  |
| HIST 1110 | Introduction to World History |  |
| HIST 1120 | Public History, Public Memory |  |
| HIST 1130 | Introduction to the History of the United States |  |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath |  |
| HIST 1180 | African History |  |
| HIST 1185 | Introduction to Middle Eastern History |  |
| HIST 1187 | Introduction to Latin American History |  |
| HIST 1189 | Introduction to South Asian History |  |
| HIST 1215 | Origins of Today: Historical Roots of Contemporary Issues |  |
| HIST 1282 | The Holocaust and Comparative Genocide |  |
| HIST 2232 | History of Boston |  |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |  |
| Complete one course from the following: |  | 4 |
| AFRS 2390 or HIST 2390 | Africa and the World in Early Times Africa and the World in Early Times |  |
| AFRS 2391 or HIST 2391 | Modern African Civilization Modern African Civilization |  |
| AFRS 2392 | African Diaspora |  |
| HIST 1252 | Japanese Literature and Culture |  |
| HIST 1270 | Ancient Greece |  |
| HIST 1271 | Ancient Rome |  |
| HIST 1285 | Introduction to Russian Civilization |  |
| HIST 2222 | History of Science and Technology |  |
| HIST 2330 | Colonial and Revolutionary America |  |
| Complete three intermediate/advanced level courses: |  | 12 |
| Select from any HIST course numbered 2303 or above. |  |  |
| Complete one advan | ed level course: | 4 |

Select from any HIST course numbered 3000 or above.
History Capstone Seminar or Senior Project

Complete one Capstone experience from the following: 4

| HIST 4701 | Capstone Seminar |
| :--- | :--- |
| HIST 4911 | Senior Project 1 |
| HIST 4912 | Senior Project 2 |

Public history concentrators may also select from the following:

| HIST 4903 | Fieldwork in History 1 |
| :--- | :--- |
| HIST 4904 | Fieldwork in History 2 |

## Cluster Requirement

Note: Four of the six courses chosen as History Electives must create a History Cluster of related courses. The History Cluster is subject to Department approval.

## Integrative Course Requirement

Code Title Hours
HIST 2211 The World Since 19454
or HIST 2241 History of Media in America

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## Research Methods Requirement

Code Title Hours

```
Complete one course from the following: 4
```

| ECON 2350 | Statistics |
| :--- | :--- |
| POLS 2400 | Quantitative Techniques |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |
| ENVR 3300 | Geographic Information Systems |
| ENVR 5260 | Geographical Information Systems |

## CCIS Computing and Social Issues

Code Title Hours

Complete one course from the following: 4

| SOCL 4528 | Computers and Society |
| :--- | :--- |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 1280 | The Twenty-First-Century Workplace |
| ANTH 3418 | Wired/Unwired: Cybercultures and <br>  <br> Technopolitics |
| PHIL 1145 | Technology and Human Values |
| IA 5240 | Cyberlaw: Privacy, Ethics, and Digital <br> Rights |

## Computer Science English Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| or ENGW 1102 | First-Year Writing for Multilingual Writers |  |

Advanced Writing in the Disciplines
This requirement is satisfied by HIST 2302 taken in conjunction with HIST 2301.

## Required General Electives

Code Title

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing in the First Year
- Writing-Intensive in the Major
- Advanced Writing in the Disciplines
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

135 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

Plan of Study
Four Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | $4 \operatorname{CS~} 3500$ | 4 |  |
| CS 1200 | 1 History Elective or Integrative 1 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| HIST 1200 | 1 |  |  |  |
| HIST 1201 | 4 |  |  |  |
|  | 19 | 17 | 8 | 0 |

Year 2
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 4800 } & \begin{array}{c}\text { 4 CS 2800 } \\ \text { and CS 2801 }\end{array} & 5 \text { Elective } & 4 \text { Co-op }\end{array}\right]$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | History <br> Elective or Integrative 5 | 4 Elective | 4 |  |
|  | History Elective or Integrative 6 | 4 |  |  |
|  | SOCL 4528, <br> 3485, 1280, <br> ANTH 3418, <br> PHIL 1145, <br> or IA 5240 | 4 |  |  |
|  | THTR 1170 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :---: | :---: | :---: | :---: |
| Co-op | CS Elective 3 | 4 Elective (if needed) | 4 |
|  | History <br> Capstone <br> Seminar <br> or Senior <br> Project | 4 Elective (if needed) | 4 |
|  | History Elective or Integrative 7 | 4 |  |
|  | Elective | 4 |  |
|  | 0 | 16 | 8 |

Total Hours: 136

## Four Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 History Elective or Integrative 1 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| HIST 1200 | 1 |  |  |  |
| HIST 1201 | 4 |  |  |  |
|  | 19 | 17 | 8 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 4800 | 4 Co-op | Co-op | Elective | 4 |
| CS 1210 | 1 |  | Elective | 4 |
| HIST 2301 | 4 |  |  |  |
| HIST 2302 | 1 |  |  |  |
| History <br> Elective or | 4 |  |  |  |
| Integrative 2 |  |  |  |  |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Co-op | Co-op | Elective | 4 |
| CS Elective 1 | 4 |  | Elective | 4 |
| History Elective or Integrative 3 | 4 |  |  |  |
| History Elective or Integrative 4 | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| CS Elective 2 | 4 CS Elective 3 | 4 Elective (if <br> needed) | 4 |

Total Hours: 136

## Five Years, Three Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | 4 | CS 2510 | 4 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | CS 2511 | 1 |  |  |
| CS 1200 | 1 | IS 2000 | 4 |  |  |
| ENGW 1111 |  | History Elective or Integrative 1 | 4 |  |  |
| HIST 1200 |  | History Elective of Integrative 2 | 4 |  |  |
| HIST 1201 | 4 |  |  |  |  |
|  | 19 |  | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | :---: |
| CS 3500 | 4 CS 2800 <br> and CS 2801 | Hours |  |

Year 3

|  | Hours Spring | Hours Summer 1 |  | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CS Elective 1 | 4 Elective | 4 Co-op |  |
|  | History <br> Elective or Integrative 5 | 4 Elective | 4 |  |
|  | SOCL 4528, 3485, 1280, ANTH 3418, PHIL 1145, or IA 5240 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | THTR 1170 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | History Elective or Integrative 6 | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :--- | ---: |
| Co-op | CS Elective 3 | 4 |
|  | History <br> Capstone <br> Seminar <br> or Senior <br> Project | 4 |
|  | History <br> Elective or <br> Integrative 7 <br> Elective | 4 |
| 0 | 16 |  |

Total Hours: 136

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 and CS 1801 | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 History Elective or Integrative 1 | 4 |  |  |
| ENGW 1111 | 4 History Elective or Integrative 2 | 4 |  |  |
| HIST 1200 | 1 |  |  |  |
| HIST 1201 | 4 |  |  |  |
|  | 19 | 17 | 0 | 0 |


| Year 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 3500 | 4 Co-op | Co-op | Vacation |  |
| CS 4800 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| HIST 2301 | 4 |  |  |  |
| HIST 2302 | 1 |  |  |  |
| ECON 2350,POLS 2400,PSYC 2320,ENVR 3300,or ENVR5260 |  |  |  |  |
|  | 18 | 0 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 Co-op | Co-op | Elective | 4 |
| CS 3200 | 4 |  | Elective | 4 |
| History Elective or Integrative 3 | 4 |  |  |  |
| History Elective or Integrative 4 | 4 |  |  |  |
| THTR 1170 | 1 |  |  |  |
|  | 18 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS Elective 1 | 4 Co-op | Co-op | Elective | 4 |
| Elective or Integrative 5 |  |  |  |  |
| SOCL 4528,3485,1280,ANTH 3418,PHIL 1145,or IA 5240 |  |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| CS Elective 2 | 4 CS Elective 3 | 4 |
| History | 4 History | 4 |
| Elective or | Capstone <br> Integrative 6 | Seminar <br> or Senior <br> Project |
| Elective | 4 History <br> Elective or <br> Integrative 7 | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 136

## History, BA/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## History Major Requirements

| Introductory History |  |  |
| :--- | :--- | ---: |
| HIST 1200 | Historical Research and Writing | 1 |
| HIST 1201 | First-Year Seminar | 4 |
| Complete two additional courses from the following: | 8 |  |
| HIST 1110 | Introduction to World History |  |
| HIST 1120 | Public History, Public Memory |  |
| HIST 1130 | Introduction to the History of the United <br>  <br> ASNS 1150 | States |
| HIST 1170 | East Asian Studies |  |
| HIST 1180 | and Their Aftermath |  |
| HIST 1187 | African History |  |
| HIST 1189 | Introduction to Latin American History |  |
| AFAM 1140 | Introduction to South Asian History |  |


| WMNS 1103 | Introduction to Women's, Gender, and <br> Sexuality Studies |
| :--- | :--- |
| History Seminar and Historical Writing |  |
| HIST 2301 The History Seminar <br> and HIST 2302 and Historical Writing | 5 |

## History Cluster

In conjunction with your history advisor, define a history cluster by the first semester of your 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
This course may count toward the history cluster or history elective.
Complete one of the following: 4

| AFRS 2390 or HIST 2390 | Africa and the World in Early Times Africa and the World in Early Times |
| :---: | :---: |
| AFRS 2391 | Modern African Civilization |
| AFRS 2392 | African Diaspora |
| HIST 2222 | History of Science and Technology |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 1270 | Ancient Greece |
| HIST 1271 | Ancient Rome |
| HIST 1285 | Introduction to Russian Civilization |
| HIST 2310 | Spread of Buddhism |
| HIST 2330 | Colonial and Revolutionary America |
| HIST 2370 | Renaissance to Enlightenment |
| HIST 2375 | The Tudors, the Stuarts, and the Birth of Modern Britain |
| History Outside the United States and Europe |  |
| Complete one of the following: |  |
| HIST 1150 | East Asian Studies |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| HIST 1206 | Drug Trade and Drug War: History, Security, Culture |
| HIST 1212 | History of Race |
| HIST 1213 | History of Violence |
| HIST 1215 | Origins of Today: Historical Roots of Contemporary Issues |
| HIST 1246 | World War II in the Pacific |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1256 | Chinese Civilization in Her Eyes |
| HIST 1260 | Modern Latin America |
| HIST 1290 | Modern Middle East |
| HIST 1292 | Jerusalem: Space and Image |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |


| HIST 2310 | Spread of Buddhism |
| :--- | :--- |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and <br> Korea |
| HIST 2390 | Africa and the World in Early Times |
| HIST 2391 | Modern African Civilization |
| HIST 2394 | Islamic Nationalism |
| HIST 2397 | Modern Africa |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HIST 4610 | Topics in World History |
| HIST 4620 | Topics in Historical Geography |
| HIST 4650 | Topics in Asian History |
| HIST 4660 | Topics in Latin American History |
| HIST 4690 | Topics in African History |
| HIST 4691 | Topics in Middle Eastern History |
| HIST 4942 | East Asian Cultural History Abroad |
| HIST 4944 | Middle Eastern History and Culture <br> Independent Field Research Abroad <br> HIST 4945North African History Abroad <br> HIST 4994 Internship in World History |
| Capstone or Project |  |
| Complete one of the following: |  |
| HIST 4701 | Capstone Seminar |
| HIST 4911 | Senior Project 1 |
| HIST 4912 | Senior Project 2 |

## Intermediate/Advanced History Course Requirement

A minimum of three courses from the above requirements must be numbered 2303 or higher. These courses may count toward the history cluster.

## Graduate Course Work to Be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Course

HIST 5101 Theory and Methodology $1 \quad 3$

Graduate Electives
Complete three graduate electives

## History Major Undergraduate Credit Requirement

Complete 46 semester hours in the major.

## Program Requirements

128 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

## Year 1

Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours

| HIST 1110 | 4 Math core | 4 |  |  |
| :--- | :---: | :---: | :--- | :--- |
| Elective | 4 Elective | 4 |  |  |
| HIST 1200 | 1 Elective | 4 |  |  |
| HIST 1201 | 4 |  | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Foreign <br> language <br> course | F Foreign <br> language <br> course | 4 Vacation | 0 Vacation | 0 |
| Elective | 4 HIST 2301 | 4 |  |  |
| HIST 1202 or <br> above | 4 HIST 2302 | 1 |  |  |
| HIST 1202 or <br> above | 4 Elective | 4 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1202 or <br> above | 4 <br> Upper- <br> division <br> elective | 4 Vacation | 0 Vacation | 0 |
| HIST 1202 or <br> above | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Foreign <br> language <br> course | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 HIST 5101 | 3 Vacation | 0 Vacation | 0 |
| HIST 4701 | 4 HIST 7235 | 3 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Upper- <br> division <br> elective | 4 BA course | 4 |  |  |
|  | 16 | 14 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| HIST 7205 | 3 HIST 7304 | 3 |
| HIST 7305 | 3 HIST 5295 | 3 |
| HIST 7228 | 3 HIST 7206 | 3 |
| Elective | 4 Elective | 4 |
|  | 13 | 13 |

Total Hours: 154

## History, BS/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## History Major Requirements

| Introductory History |  |  |
| :--- | :--- | ---: |
| HIST 1200 | Historical Research and Writing | 1 |
| HIST 1201 | First-Year Seminar | 4 |
| Complete two of the following: | 8 |  |
| HIST 1110 | Introduction to World History |  |
| HIST 1120 | Public History, Public Memory |  |
| HIST 1130 | Introduction to the History of the United <br> States |  |
| ASNS 1150 | East Asian Studies |  |
| HIST 1170 | Europe: Empires, Revolutions, Wars, <br> and Their Aftermath |  |
| HIST 1180 | African History |  |
| HIST 1185 | Introduction to Middle Eastern History |  |
| HIST 1187 | Introduction to Latin American History |  |
| HIST 1189 | Introduction to South Asian History |  |
| AFAM 1140 | Introduction to African-American |  |
| WMNS 1103 | Introduction to Women's, Gender, and <br> Sexuality Studies |  |

History Seminar and Historical Writing
HIST 2301 The History Seminar 5
and HIST 2302 and Historical Writing

## History Cluster

In conjunction with your history advisor, define a history cluster by the first semester of your 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

This course may count toward the history cluster or history elective.

Complete one of the following: 4

| AFRS 2390 | Africa and the World in Early Times |
| :---: | :--- |
| AFRS 2391 2390 | Africa and the World in Early Times |
| AFRS 2392 | Modern African Civilization |
| HIST 2222 | History of Science and Technology |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1218 | Pirates, Planters, and Patriots: Making <br> the Americas, 1492-1804 |


| HIST 1270 | Ancient Greece |
| :---: | :---: |
| HIST 1271 | Ancient Rome |
| HIST 1285 | Introduction to Russian Civilization |
| HIST 2310 | Spread of Buddhism |
| HIST 2330 | Colonial and Revolutionary America |
| HIST 2370 | Renaissance to Enlightenment |
| HIST 2375 | The Tudors, the Stuarts, and the Birth of Modern Britain |
| History Outside the United States and Europe |  |
| Complete one of the following: |  |
| HIST 1150 | East Asian Studies |
| HIST 1180 | African History |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1187 | Introduction to Latin American History |
| HIST 1189 | Introduction to South Asian History |
| HIST 1206 | Drug Trade and Drug War: History, Security, Culture |
| HIST 1212 | History of Race |
| HIST 1213 | History of Violence |
| HIST 1215 | Origins of Today: Historical Roots of Contemporary Issues |
| HIST 1246 | World War II in the Pacific |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1256 | Chinese Civilization in Her Eyes |
| HIST 1260 | Modern Latin America |
| HIST 1290 | Modern Middle East |
| HIST 1292 | Jerusalem: Space and Image |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2310 | Spread of Buddhism |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and Korea |
| HIST 2390 | Africa and the World in Early Times |
| HIST 2391 | Modern African Civilization |
| HIST 2394 | Islamic Nationalism |
| HIST 2397 | Modern Africa |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HIST 4610 | Topics in World History |
| HIST 4620 | Topics in Historical Geography |
| HIST 4650 | Topics in Asian History |
| HIST 4660 | Topics in Latin American History |
| HIST 4690 | Topics in African History |
| HIST 4691 | Topics in Middle Eastern History |
| HIST 4942 | East Asian Cultural History Abroad |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad |


| HIST 4945 | North African History Abroad |
| :--- | :--- |
| HIST 4994 | Internship in World History |

Research Methods
Complete one of the following: 4

| CS 1100 | Computer Science and Its Applications |
| :--- | :--- |
| PHIL 1215 | Symbolic Logic |
| ECON 2350 | Statistics |
| ENVR 5260 | Geographical Information Systems |
| MATH 1180 | Statistical Thinking |
| MATH 2280 | Statistics and Software |
| POLS 2400 | Quantitative Techniques |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |

Capstone or Project
Requirement for Non-Public History Concentrators
Complete one of the following:
HIST 4701 Capstone Seminar
HIST 4911 Senior Project 1
HIST 4912 Senior Project 2

## Requirement for Public History Concentrators

Public history concentrators satisfy this requirement within the concentration.

## Optional Public History Concentration

Note: Public History, Public Memory (HIST 1120) is a prerequisite for Fieldwork in History 1 (HIST 4903) and Fieldwork in History 2 (HIST 4904).

## Public History Courses

| HIST 1120 | Public History, Public Memory | 4 |
| :--- | :--- | :--- |
| HIST 4903 | Fieldwork in History 1 | 4 |
| HIST 4904 | Fieldwork in History 2 | 4 |

Graduate Public History Course
Complete one graduate-level course in public history. See 4
history faculty advisor for an approved list.

## Intermediate/Advanced History Course Requirement

A minimum of three courses from the above requirements must be numbered 2303 or higher. These courses may count toward the history cluster.

## Graduate Course Work to Be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Required Course

HIST 5101 Theory and Methodology $1 \quad 3$

Graduate Electives
Complete three graduate electives

## History Major Credit Requirement

Complete 46 semester hours for the major.

## Program Requirements

128 total semester hours required for the bachelor's degree
Minimum 3.000 GPA required in all graduate courses

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 HIST 1130 or |  |  |  |
|  | 1170 | 4 Vacation | 0 Vacation | 0 |
| HIST 1110 | 4 Math core | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| HIST 1200 | 1 Elective | 4 |  |  |
| HIST 1201 | 4 | 16 | 0 | 0 |
|  | 17 |  |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 1120 | 4 HIST 2301 | 4 Vacation | 0 Vacation | 0 |
| Research <br> methods <br> course | 4 HIST 2302 | 1 |  |  |
| HIST 1202 or <br> above | 4 HIST 1202 or <br> above | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | Elective | 4 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| HIST 1202 or above | 4 SOC minor course | 4 SOC minor course | 4 Vacation | 0 |
| HIST 1202 or above | 4 SOC minor course | 4 |  |  |
| Public history elective | 4 Upperdivision elective | 4 |  |  |
| SOC minor course | 4 HIST 4903 | 4 |  |  |
|  | 16 | 16 | 4 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HIST 4904 | 4 Upper- <br> division <br> elective | 4 Vacation | 0 Vacation | 0 |
| HIST 4701 | 4 HIST 7210 | 3 |  |  |
| HIST 5101 | 3 Elective | 4 |  |  |
| SOC minor <br> course | 4 HIST 5245 | 3 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| HIST 5244 | 3 HIST 5239 | 3 |
| HIST 7217 | 3 HIST 8674 | 3 |
| HIST 5240 | 3 HIST 8410 | 3 |
| Graduate <br> seminar | HIST <br> undergraduatı <br> elective | 4 |
|  | 13 | 13 |

[^20]
## History, BA/JD

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## History, BS/JD

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## History, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete five history courses, of which at least two must be taken at Northeastern and must be numbered HIST 1200 or higher. History minors must have a total of 20 semester hours in history.

## GPA Requirement

### 2.000 GPA required in the minor

## Human Services

Website (http://www.northeastern.edu/humanservices)

## Lori Gardinier, PhD

Director, Human Services Program
310 Renaissance Park
617.373 .5918
617.373 .7905 (fax)

Lori Gardinier, Director, I.gardinier@northeastern.edu
The human services major prepares students for careers in social change by providing students with the theoretical and skill-based background necessary for practice and research.

Students take academically rigorous courses relevant to the field while honing their skills through our extensive experiential educational opportunities. Through courses, service-learning, co-op, and internships, students have an opportunity to acquire professional skills related to counseling, nonprofit management, political advocacy, and organizational and community development. Students who major in human services select a specialization in an area that they wish to pursue further.

Alumni have gone on to work as leaders and practitioners in nonprofit, legal services, and government. Many have pursued graduate degrees in a broad range of fields associated with health and human services, including social work, public health, education, and law.

## Prepared Specializations

- Applied behavior analysis
- Deaf studies
- Family and children's services
- Identity and social change
- Psychology/counseling psychology
- Social justice and social policy
- Customized specialization


## Academic Progression Standards

After four semesters, students must maintain a minimum 2.000 gradepoint average, have earned at least 64 semester hours, and should have completed the following courses:

| HUSV 1101 | Human Services Professions | 4 |
| :--- | :--- | :--- |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3700 | Research Methods for Human Services | 4 |
| HUSV 3900 | Introduction to Social Policy | 4 |

An approved organizations course
At least one specialization course (see advisor)
In order to take Human Services Internship (HUSV 4994) 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.

## Human Services Minor

The minor in human services may help lead to careers in many diverse areas of social change or to graduate programs in social work, health, 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.

## Programs

## Bachelor of Arts (BA)

- Human Services (p. 669)
- Human Services and International Affairs (p. 673)
- Human Services and Sociology (p. 677)
- Human Services and Communication Studies (p. 683)


## Bachelor of Science (BS)

- Human Services (p. 678)
- American Sign Language and Human Services (p. 682)
- Human Services and Criminal Justice (p. 684)
- Human Services and Sociology (p. 686)


## Dual Degrees

- Human Services, BA/MS (p. 671)
- Human Services, BS/MS (p. 681)


## Minor

- Human Services (p. 688)


## Human Services, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Human Services Major Requirements

## Human Services Overview

| HUSV 1101 | Human Services Professions | 4 |
| :--- | :--- | :---: |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management | 4 |

## Research

| HUSV 3700 | Research Methods for Human Services | 4 |
| :--- | :--- | :---: |
| Policy | Introduction to Social Policy | 4 |
| HUSV 3900 | Sociology of Human Service <br> Organization | 4 |
| SOCL 3440 | 4 |  |

Human Services and Diverse Populations
Complete one of the following: 4

| HUSV 2350 | Ethnic Relations, Cultural Identity, and |
| :--- | :--- |
|  | Human Services |
| HUSV 2800 | Sexual Orientation and Gender |
|  | Expression in Practice and Policy |
| HUSV 4920 | International Human Services |
| HUSV 4866 | Intercultural Studies through Human <br>  |

Human Services Electives
Complete two HUSV courses.
Senior Seminar and Internship

| HUSV 4700 | Senior Seminar in Human Services | 4 |
| :--- | :--- | :--- |
| HUSV 4994 | Human Services Internship | 6 |

## Human Services Specialization for BA Degree

Complete one of the specializations listed below.

## Specialization in Deaf Studies

| AMSL 1101 | Elementary ASL 1 (normally taken as <br> part of the BA core) | 4 |
| :--- | :--- | :---: |
| AMSL 1102 | Elementary ASL 2 (normally taken as <br> part of the BA core) | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |


| AMSL 2102 | Intermediate ASL 2 | 4 |
| :---: | :---: | :---: |
| DEAF 1500 | Deaf People in Society | 4 |
| Specialization in Family and Children's Services |  |  |
| Required |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| HUSV 3520 | Child Intervention and Treatment | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| EDUC 1111 | Education in the Community |  |
| PSYC 2352 | Childhood Mental Illness |  |
| PSYC 3404 | Developmental Psychology |  |
| SOCL 1255 | Sociology of the Family |  |
| SOCL 1256 | Violence in the Family |  |
| SOCL 1260 | Gender in a Changing Society |  |
| SOCL 3437 | Children and Youth in Contemporary Society |  |
| Specialization in Psychology/Counseling Psychology |  |  |
| Required |  |  |
| CAEP 3485 | Mental Health and Counseling | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| CAEP 3480 | Counseling Theories and Practice |  |
| CAEP 4502 | Health Counseling |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 3540 | Services and Treatments for Chemical Dependencies |  |
| PHIL 1165 | Moral and Social Problems in Healthcare |  |
| PSYC 3400 | Personality |  |
| PSYC 3404 | Developmental Psychology |  |
| PSYC 3406 | Abnormal Psychology |  |
| NRSG 1205 | Wellness |  |
| SOCL 3441 | Sociology of Health and Illness |  |
| Specialization in Social Justice and Social Policy |  |  |
| Required |  |  |
| COMM 4603 | Advocacy Workshop | 4 |
| POLS 2385 | U.S. Health and Welfare Policy | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| COMM 1412 | Social Movement Communication |  |
| ECON 1240 | Economics of Crime |  |
| AFAM 1270 | Economic Status of Ethnic Minorities |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 3550 | Social Policy, Advocacy, and Activism |  |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |  |
| POLS 3307 | Public Policy and Administration |  |
| SOCL 1240 | Sociology of Prejudice and Violence |  |
| SOCL 1246 | Environment and Society |  |
| SOCL 2270 | Race and Ethnic Relations |  |
| Specialization in Identity and Social Change |  |  |


| Required |  | 4 |
| :--- | :--- | ---: |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and <br> Human Services | 4 |
| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy | 4 |
| Elective |  | 4 |


| AFAM 2367 | Race and Social Identity |
| :--- | :--- |
| AFAM 1270 | Economic Status of Ethnic Minorities |
| ASNS 2245 | The Asian-American Experience |
| HUSV 2700 | Exploring Adoption: Family, Kinship, <br> and Identity in Contemporary America |
| HUSV 2900 | Gender Violence: Bystander Education <br> Theory and Practice |
| HUSV 3550 | Social Policy, Advocacy, and Activism |
| PHIL 1110 | Introduction to Religion |
| PHIL 1285 | Jewish Religion and Culture |
| POLS 2370 | Religion and Politics |
| SOCL 1240 | Sociology of Prejudice and Violence <br> SOCL 1260Gender in a Changing Society <br> SOCL 1287Sociology of Religion <br> WMNS 1101Sex, Gender, and Popular Culture <br> WMNS 1103Introduction to Women's, Gender, and <br> Sexuality Studies |
| WMNS 2480 | Women and World Politics |

Specialization in Applied Behavior Analysis
PSYC $1101 \quad$ Foundations of Psychology
PSYC 3358 Behavior Therapies 4
PSYC $3450 \quad$ Learning and Motivation 4
PSYC $4654 \quad$ Seminar in Behavioral Modification 4

## Independent Specialization

With approval from the program director, an independent 12
specialization, consisting of three courses, may be defined in consultation with your advisor.

## Human Services Major Credit Requirement

Complete 58 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HUSV 1000 | 1 HUSV 2300 | 4 Vacation | 0 Vacation | 0 |
| HUSV 1101 | 4 HSVC | 4 |  |  |
| ENGW 1111 | 4 Elective |  |  |  |
| MATH 1215 | 4 Elective | 4 |  |  |
| Elective | 4 | 16 | 0 | 0 |
|  | 17 |  | 4 |  |


| Year 2 |  |  | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours


| Year 3 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | ENGW 3315 | 4 | Elective | 4 Co-op | 0 |
|  |  | HUSV 3700 | 4 | Elective | 4 |  |
|  |  | HSVC <br> diverse population course | 4 |  |  |  |
|  |  | Foreign language core course | 4 |  |  |  |
|  | 0 |  | 16 |  | 8 | 0 |


| Year 4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | HUSV 4994 |  | HSVC specialization | 4 | Co-op | 0 |
|  |  | HUSV 3900 | 4 | Elective | 4 |  |  |
|  |  | HSVC <br> specialization | 4 |  |  |  |  |
|  |  | Elective | 4 |  |  |  |  |
|  | 0 |  | 18 |  | 8 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 HUSV 4700 | 4 |
|  | HSVC | 4 |
|  | elective |  |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 132

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| HUSV 1000 | 1 | HUSV 2300 | 4 Vacation | 0 Vacation | 0 |
| HUSV 1101 |  | HSVC elective | 4 |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |
| MATH 1215 | 4 | Elective | 4 |  |  |
| Elective | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| HSVC specialization | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| HSVC elective | 4 |  | Elective | 4 |
| Foreign language core course | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| HSVC organization course | 4 Co-op | 0 Co-op | 0 HSVC specialization | 4 |
| Foreign language core course | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| HSVC diverse population course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| HUSV 3700 | 4 |  |  |  |
| HSVC <br> specialization | 4 |  |  |  |
| HSVC <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| HUSV 4994 | 6 HUSV 4700 | 4 |
| HUSV 3900 | 4 Elective | 4 |
| Foreign <br> language <br> core course | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 18 | 16 |

Total Hours: 132

## Human Services, BA/MS

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Human Services Major Requirements

| Human Services Overview | 4 |  |
| :--- | :--- | ---: |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management | 4 |
| Research | Research Methods for Human Services | 4 |
| HUSV 3700 | Introduction to Social Policy | 4 |
| Policy |  | 4 |
| HUSV 3900 | Sociology of Human Service <br> Organization | Organizations |
| SOCL 3440 |  | 4 |

Human Services and Diverse Populations

| Complete one of the following: |  |
| :---: | :--- |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and |
|  | Human Services |
| HUSV 2800 | Sexual Orientation and Gender <br>  <br> Expression in Practice and Policy |
| HUSV 4920 | International Human Services |
| HUSV 4866 | Intercultural Studies through Human <br> Services |


| Human Services Electives | 8 |
| :--- | ---: |
| Complete two HUSV courses. |  |
| Senior Seminar and Internship | 4 |
| HUSV 4700 | Senior Seminar in Human Services |
| HUSV 4994 | Human Services Internship |

Human Services Specialization for BA Degree
Complete one of the specializations listed below.

| Specialization in Deaf Studies |  |  |
| :--- | :--- | ---: |
| AMSL 1101 | Elementary ASL 1 (normally taken as <br> part of the BA core) | 4 |
| AMSL 1102 | Elementary ASL 2 (normally taken as <br> part of the BA core) | 4 |
| AMSL 2101 | Intermediate ASL 1 | 4 |
| AMSL 2102 | Intermediate ASL 2 | 4 |
| DEAF 1500 | Deaf People in Society | 4 |
| Specialization in Family and Children's Services |  |  |
| Required | Foundations of Psychology | 4 |
| PSYC 1101 | Child Intervention and Treatment | 4 |
| HUSV 3520 |  |  |

Elective

| Complete one of the following: |  |
| :--- | :--- |
| EDUC 1111 | Education in the Community |
| PSYC 2352 | Childhood Mental Illness |
| PSYC 3404 | Developmental Psychology |
| SOCL 1255 | Sociology of the Family |
| SOCL 1256 | Violence in the Family |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 3437 | Children and Youth in Contemporary |

Specialization in Psychology/Counseling Psychology
Required

| CAEP 3485 | Mental Health and Counseling | 4 |
| :---: | :---: | :---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| Elective |  |  |
| Complete one of the following: |  | 4 |
| CAEP 3480 | Counseling Theories and Practice |  |
| CAEP 4502 | Health Counseling |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 3540 | Services and Treatments for Chemical Dependencies |  |
| PHIL 1165 | Moral and Social Problems in Healthcare |  |
| PSYC 3400 | Personality |  |
| PSYC 3404 | Developmental Psychology |  |
| PSYC 3406 | Abnormal Psychology |  |
| NRSG 1205 | Wellness |  |
| SOCL 3441 | Sociology of Health and Illness |  |

Specialization in Social Justice and Social Policy
Required

| COMM 4603 | Advocacy Workshop | 4 |
| :--- | :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy | 4 |

Elective
Complete one of the following:

| COMM 1412 | Social Movement Communication |
| :--- | :--- |
| ECON 1240 | Economics of Crime |
| AFAM 1270 | Economic Status of Ethnic Minorities |
| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy |
| HUSV 3550 | Social Policy, Advocacy, and Activism |
| LPSC 2302 | Global Human Rights: A Social and <br> Economic Perspective |
| POLS 3307 | Public Policy and Administration |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1246 | Environment and Society |
| SOCL 2270 | Race and Ethnic Relations |

Specialization in Identity and Social Change
Required

| HUSV 2350 | Ethnic Relations, Cultural Identity, and <br> Human Services | 4 |
| :--- | :--- | ---: |
| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy | 4 |
| Elective |  | 4 |


| AFAM 2367 | Race and Social Identity |  |
| :---: | :---: | :---: |
| AFAM 1270 | Economic Status of Ethnic Minorities |  |
| ASNS 2245 | The Asian-American Experience |  |
| HUSV 2700 | Exploring Adoption: Family, Kinship, and Identity in Contemporary America |  |
| HUSV 2900 | Gender Violence: Bystander Education Theory and Practice |  |
| HUSV 3550 | Social Policy, Advocacy, and Activism |  |
| POLS 2370 | Religion and Politics |  |
| SOCL 1240 | Sociology of Prejudice and Violence |  |
| SOCL 1260 | Gender in a Changing Society |  |
| SOCL 1287 | Sociology of Religion |  |
| WMNS 1101 | Sex, Gender, and Popular Culture |  |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |  |
| WMNS 2480 | Women and World Politics |  |
| Specialization in Applied Behavior Analysis |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 3358 | Behavior Therapies | 4 |
| PSYC 3450 | Learning and Motivation | 4 |
| PSYC 4654 | Seminar in Behavioral Modification | 4 |
| Independent Specialization |  |  |
| With approval from the program director, an independent specialization, consisting of three courses, may be defined in consultation with your advisor. |  |  |
| Human Services Major Undergraduate Credit Requirement Complete 58 semester hours in the major. |  |  |
| Graduate Courses taken as an Undergraduate Student |  |  |
| CAEP 6200 | Introduction to Counseling: Theory and Process in an Ecological Context | 3 |
| CAEP 6235 | Vocational, Education, and Career Development | 3 |
| CAEP 6262 | Evaluation and Outcomes Assessment of Community, School, and HealthRelated Programs | 3 |
| CAEP 6300 | Introduction to College Student Development | 3 |
| CAEP 6301 | Planning and Administering Student Affairs | 3 |

## Program Requirement

128 total semester hours required
Minimum GPA of 3.000 is required in all graduate courses.

## Human Services and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Human Services Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management | 4 |

Research Methods

| HUSV 3700 | Research Methods for Human Services | 4 |
| :--- | :--- | :--- |
| Policy |  | 4 |
| HUSV 3900 | Introduction to Social Policy | 4 |

Organization

| SOCL 3440 | Sociology of Human Service <br> Organizations | 4 |
| :--- | :--- | :--- |

Internship
HUSV $4994 \quad 6$

Human Services Electives
Complete two HUSV courses.

Global Dynamics
Complete two of the following: ${ }^{1}$

| INTL 1185 | Gender in the African Diaspora |
| :--- | :--- |
| or AFRS 1185 | Gender in the African Diaspora |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |
| INTL 3200 | Cities in a Global Context <br> INTL 3460Transnational Activism in Global Civil <br> Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues <br> in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary <br> Perspectives |


| AFAM 2301 | Foundations of Black Culture 2 |
| :---: | :---: |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |


| MUSC 1140 | Global Pop Music |
| :---: | :---: |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two short-term programs.
${ }^{1}$ International Relations (POLS 1160) and International Conflict and Negotiation (INTL 3400) are not permitted to count in the Global Dynamics area for the Human Services and International Affairs, BA as they are required in other areas of the major.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code <br> Africa | Title | Hours |
| :--- | :--- | ---: |
| AFRS 1128 | The African Experience through Music | 4 |


| AFRS 2307 | Africa Today | 4 |
| :---: | :---: | :---: |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |


| HIST 1271 | Ancient Rome | 4 |
| :---: | :---: | :---: |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |


| HIST 4945 | North African History Abroad | 4 |
| :---: | :---: | :---: |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \quad \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Human Services/International Affairs Integrative Courses

Complete Senior Seminar in Human Services (HUSV 4700) or Senior Capstone Seminar in International Affairs (INTL 4700) or both. Note, however, that students wishing to take HUSV 4700 but not INTL 4700 must meet with an INTL advisor to obtain approval for a substitute INTL course. Similarly, students wishing to take INTL 4700 but not HUSV 4700 must meet with an HUSV advisor to obtain approval for a substitute HUSV course. Substitute courses (HUSV or INTL) must be upper-division courses and must relate to the combined major.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Human Services |  | 4 |
| HUSV 4700 | Senior Seminar in Human Services | 4 |
| International Affairs |  | 4 |
| INTL 4700 | Senior Capstone Seminar in <br> International Affairs |  |

## Human Services and International Affairs Combined-Major Credit Requirement

Complete 90 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 | Elective | 4 Vacation | 0 Vacation | 0 |
| INTL 1000 |  | Foreign language core course | 4 |  |  |
| INTL 1101 | 4 | HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 | ECON 1290 | 4 |  |  |
| HSVC <br> elective |  |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective | 4 | Elective | 4 Vacation | Co-op | 0 |
| Foreign language core course | 4 | HUSV 3700 | 4 |  |  |
| INTL elective | 4 | HUSV 3900 | 4 |  |  |
| HSVC elective | 4 | EXED 2000 | 1 |  |  |
|  |  | INTL 3400 | 4 |  |  |
|  | 16 |  | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Elective | 4 Elective | 4 Co-op | 0 |
|  | INTL elective | 4 INTL elective | 4 |  |
| HSVC <br> organization <br> course | 4 |  |  |  |
| HSVC <br> elective | 4 |  | 0 |  |
| 0 | 16 | 8 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3315 | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 INTL elective | 4 |  |
|  | INTL elective | 4 |  |  |
|  | HUSV 4994 | 6 |  | 0 |
| 0 | 18 | 8 |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 Elective | 4 |
|  | INTL elective | 4 |
|  | HUSV 4700 | 4 |
|  | INTL 4700 | 4 |
|  | 0 | 16 |

Total Hours: 132

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 Elective | 4 Vacation | 0 Vacation | 0 |


| INTL 1000 | Foreign <br> language <br> core course | 4 |  |  |
| :--- | :--- | :---: | :--- | :--- |
| INTL 1101 | 4 HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 ECON 1290 | 4 |  |  |
| HSVC <br> elective | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign <br> language <br> core course | 4 |  | INTL elective |  |$\quad 4$|  |
| :--- |
| HSVC <br> elective |
| HUSV 3900 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| INTL elective | 4 |  | INTL elective | 4 |
| HUSV 3700 | 4 |  |  |  |
| HSVC <br> elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Elective | 4 |  |  |  |
| INTL elective | 4 |  |  |  |
| HUSV 4994 | 6 |  | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| HSVC <br> organization <br> course | 4 INTL elective | 4 |
| HSVC policy <br> course | 4 Elective | 4 |
| Elective | 4 HUSV 4700 | 4 |
| INTL elective | 4 INTL 4700 | 4 |
|  | 16 | 16 |

Total Hours: 132

## Human Services and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

Human Services Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> $\quad$ Management | 4 |

## Policy

HUSV 3900 Introduction to Social Policy 4
Research Methods
Complete option A or option B:

Option A
HUSV 3700 Research Methods for Human Services

Option B
Complete the following and one additional HUSV course:
SOCL 2321 Research Methods in Sociology

| Organization |  |
| :--- | :--- | :--- |
| SOCL 3440 | Sociology of Human Service |

## Human Services Internship

HUSV $4994 \quad$ Human Services Internship 6
Human Services Elective
Complete one additional HUSV course.
Senior Capstone ${ }^{1}$
HUSV 4700 Senior Seminar in Human Services 4
${ }^{1}$ With permission of human services, the student may complete sociology capstone Senior Seminar (SOCL 4600) and substitute one advanced human services elective for Senior Seminar in Human Services (HUSV 4700).

## Sociology Requirements

A grade of $C$ or higher is required in sociology requirements.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Sociology Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 3440 | Sociology of Human Service <br> Organizations | 4 |
| Introductory Electives | 8 |  |
| Complete two of the following: |  |  |
| SOCL 1120 | Society and Health |  |
| SOCL 1200 | Sociology of Alcoholism |  |



| Policy |  |  |
| :---: | :---: | :---: |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Organization |  |  |
| SOCL 3440 | Sociology of Human Service Organizations | 4 |
| Human Services and Diverse Populations |  |  |
| Complete one of the following: |  | 4 |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 4920 | International Human Services |  |
| HUSV 4866 | Intercultural Studies through Human Services |  |
| Human Services Electives |  |  |
| Complete two HUSV courses. |  | 8 |
| Senior Seminar and Internship |  |  |
| HUSV 4700 | Senior Seminar in Human Services | 4 |
| HUSV 4994 | Human Services Internship | 6 |
| Human Services Specialization for BS Degree |  |  |
| Complete one of the specializations listed below. |  |  |
| Family and Children's Services |  |  |
| Required |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| HUSV 3520 | Child Intervention and Treatment | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| EDUC 1111 | Education in the Community |  |
| EDUC 1113 |  |  |
| EDUC 3201 |  |  |
| EDUC 3202 |  |  |
| PSYC 2352 | Childhood Mental Illness |  |
| PSYC 3404 | Developmental Psychology |  |
| SOCL 1255 | Sociology of the Family |  |
| SOCL 1256 | Violence in the Family |  |
| SOCL 1260 | Gender in a Changing Society |  |
| SOCL 3437 | Children and Youth in Contemporary Society |  |
| Psychology/Counseling Psychology |  |  |
| Required |  |  |
| CAEP 3485 | Mental Health and Counseling | 4 |
| PSYC 1101 | Foundations of Psychology | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| CAEP 3480 | Counseling Theories and Practice |  |
| CAEP 4502 | Health Counseling |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 3540 | Services and Treatments for Chemical Dependencies |  |
| PHIL 1165 | Moral and Social Problems in Healthcare |  |
| PSYC 3400 | Personality |  |
| PSYC 3404 | Developmental Psychology |  |


| PSYC 3406 | Abnormal Psychology |  |
| :---: | :---: | :---: |
| NRSG 1205 | Wellness |  |
| SOCL 3441 | Sociology of Health and Illness |  |
| Social Justice and Social Policy |  |  |
| Required |  |  |
| COMM 4603 | Advocacy Workshop | 4 |
| POLS 2385 | U.S. Health and Welfare Policy | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| COMM 1412 | Social Movement Communication |  |
| ECON 1240 | Economics of Crime |  |
| AFAM 1270 | Economic Status of Ethnic Minorities |  |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 3550 | Social Policy, Advocacy, and Activism |  |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |  |
| POLS 3307 | Public Policy and Administration |  |
| SOCL 1240 | Sociology of Prejudice and Violence |  |
| SOCL 1246 | Environment and Society |  |
| SOCL 2270 | Race and Ethnic Relations |  |
| Identity and Social Change |  |  |
| Required |  |  |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services | 4 |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy | 4 |
| Electives |  |  |
| Complete three | following: | 12 |
| AFAM 2367 | Race and Social Identity |  |
| AFAM 1270 | Economic Status of Ethnic Minorities |  |
| ASNS 2245 | The Asian-American Experience |  |
| HUSV 2700 | Exploring Adoption: Family, Kinship, and Identity in Contemporary America |  |
| HUSV 2900 | Gender Violence: Bystander Education Theory and Practice |  |
| HUSV 3550 | Social Policy, Advocacy, and Activism |  |
| PHIL 1110 | Introduction to Religion |  |
| PHIL 1185 | The Ethics of Food |  |
| SOCL 1240 | Sociology of Prejudice and Violence |  |
| SOCL 1260 | Gender in a Changing Society |  |
| SOCL 1287 | Sociology of Religion |  |
| WMNS 1101 | Sex, Gender, and Popular Culture |  |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |  |
| WMNS 2480 | Women and World Politics |  |
| Applied Behavior Analysis |  |  |
| Required |  |  |
| PSYC 1101 | Foundations of Psychology | 4 |
| PSYC 3358 | Behavior Therapies | 4 |
| PSYC 3450 | Learning and Motivation | 4 |
| PSYC 4654 | Seminar in Behavioral Modification | 4 |
| Electives |  |  |


| Complete two of the following: |  |
| :---: | :--- |
| PSYC 2352 | Childhood Mental Illness |
| PSYC 2356 | Nonverbal Communication |
| PSYC 3400 | Personality |
| PSYC 3404 | Developmental Psychology |
| PSYC 3466 | Cognition |

Independent Specialization
With approval from the program director, an independent
specialization, consisting of five courses, may be defined in
consultation with your advisor.

## Human Services Major Credit Requirement

Complete 66 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| HUSV 1000 | 1 HUSV 2300 | 4 Vacation | 0 Vacation | 0 |
| HUSV 1101 | HSVC <br> elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  | 0 |
| Elective | 4 | 16 | 0 |  |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| HSVC <br> specialization |  | HSVC organization course | 4 Vacation | 0 Co-op | 0 |
| HSVC elective | 4 | HSVC <br> specialization | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
|  |  | EESH 2000 | 1 |  |  |
|  | 16 |  | 17 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3315 | 4 Elective | 4 Co-op | 0 |
|  | HUSV 3700 | 4 HSVC <br> specialization | 4 |  |
|  | HSVC <br> specialization | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 HUSV 3900 | 4 HSVC | 4 Co-op | 0 |
|  | specialization |  |  |  |


|  | HSVC <br> diverse population course | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 0 | 18 | 8 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| Co-op | 0 HUSV 4700 | 4 |  |  |
|  | HSVC elective | 4 |  |  |
|  | Upperdivision elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 |  |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| HUSV 1000 | 1 HUSV 2300 | 4 Vacation | 0 Vacation | 0 |
| HUSV 1101 | 4 HSVC elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HSVC <br> specialization | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| HSVC <br> elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| HSVC organization course | 4 Co-op | 0 Co-op | 0 HSVC specialization | 4 |
| HSVC diverse population course | 4 |  | Elective | 4 |
| ENGW 3315 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HUSV 3700 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Elective | 4 |  |  |  |
| HSVC | 4 |  |  |  |
| specialization |  |  |  |  |


| HSVC <br> elective | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| HUSV 4994 | 6 | HUSV 4700 | 4 |
| HUSV 3900 |  | HSVC specialization | 4 |
| HSVC specialization | 4 | Elective | 4 |
| Elective | 4 | Elective | 4 |
| 18 |  |  | 16 |

Total Hours: 132

## Human Services, BS/MS

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Human Services Major Requirements |  |  |
| :---: | :---: | :---: |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| Research |  |  |
| HUSV 3700 | Research Methods for Human Services | 4 |
| Policy |  |  |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Organization |  |  |
| SOCL 3440 | Sociology of Human Service Organizations | 4 |
| Human Services and Diverse Populations |  |  |
| Complete one of the following: |  | 4 |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and Human Services |  |
| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy |  |
| HUSV 4920 | International Human Services |  |
| HUSV 4866 | Intercultural Studies through Human Services |  |

[^21]Complete two HUSV courses. ..... 8
Senior Seminar and Internship

| HUSV 4700 | Senior Seminar in Human Services | 4 |
| :--- | :--- | :--- |
| HUSV 4994 | Human Services Internship | 6 |

## Human Services Specialization for BS Degree

Complete one of the specializations listed below.

## Family and Children's Services

| Required |  | 4 |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| HUSV 3520 | Child Intervention and Treatment | 12 |
| Electives |  |  |
| Complete three of the following: |  |  |
| EDUC 1111 | Education in the Community |  |
| EDUC 1113 |  |  |
| EDUC 3201 |  |  |
| EDUC 3202 |  |  |
| PSYC 2352 | Childhood Mental Illness |  |
| PSYC 3404 | Developmental Psychology |  |
| SOCL 1255 | Sociology of the Family |  |
| SOCL 1256 | Violence in the Family |  |
| SOCL 1260 | Gender in a Changing Society <br> SOCL 3437 | Children and Youth in Contemporary <br> Society |

## Psychology/Counseling Psychology

Required

| CAEP 3485 | Mental Health and Counseling | 4 |
| :--- | :--- | ---: |
| PSYC 1101 | Foundations of Psychology | 4 |
| Elective |  |  |
| Complete three of the following: | 12 |  |


| CAEP 3480 | Counseling Theories and Practice |
| :--- | :--- |
| CAEP 4502 | Health Counseling |
| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy |
| HUSV 3540 | Services and Treatments for Chemical <br> Dependencies |
| PHIL 1165 | Moral and Social Problems in <br> Healthcare |
| PSYC 3400 | Personality |
| PSYC 3404 | Developmental Psychology |
| PSYC 3406 | Abnormal Psychology |
| NRSG 1205 | Wellness |
| SOCL 3441 | Sociology of Health and Illness |


| Social Justice and Social Policy |  |  |
| :--- | :--- | ---: |
| Required |  | 4 |
| COMM 4603 | Advocacy Workshop | 4 |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| Electives |  | 12 |


| COMM 1412 | Social Movement Communication |
| :--- | :--- |
| ECON 1240 | Economics of Crime |
| AFAM 1270 | Economic Status of Ethnic Minorities |
| HUSV 2350 | Ethnic Relations, Cultural Identity, and |
|  | Human Services |


| HUSV 2800 | Sexual Orientation and Gender Expression in Practice and Policy | CAEP 6235 | Vocational, Education, and Career Development | 3 |
| :---: | :---: | :---: | :---: | :---: |
| HUSV 3550 | Social Policy, Advocacy, and Activism | CAEP 6262 | Evaluation and Outcomes Assessment of Community, School, and HealthRelated Programs | 3 |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |  |  |  |
| POLS 3307 | Public Policy and Administration | CAEP 6300 | Introduction to College Student Development | 3 |
| SOCL 1240 | Sociology of Prejudice and Violence |  |  |  |
| SOCL 1246 | Environment and Society | CAEP 6301 | Planning and Administering Student Affairs | 3 |
| SOCL 2270 | Race and Ethnic Relations |  |  |  |

Identity and Social Change
Required

| HUSV 2350 | Ethnic Relations, Cultural Identity, and <br> Human Services | 4 |
| :--- | :--- | :--- |
| HUSV 2800 | Sexual Orientation and Gender <br> Expression in Practice and Policy | 4 |

## Electives

Complete three of the following:

## 12

| AFAM 2367 | Race and Social Identity |
| :--- | :--- |
| AFAM 1270 | Economic Status of Ethnic Minorities |
| ASNS 2245 | The Asian-American Experience |
| HUSV 2700 | Exploring Adoption: Family, Kinship, <br> and Identity in Contemporary America |
| HUSV 2900 | Gender Violence: Bystander Education <br> Theory and Practice |
| HUSV 3550 | Social Policy, Advocacy, and Activism |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1287 | Sociology of Religion |
| WMNS 1101 | Sex, Gender, and Popular Culture |
| WMNS 1103 | Introduction to Women's, Gender, and <br> Sexuality Studies |

WMNS $2480 \quad$ Women and World Politics
Applied Behavior Analysis

| Required |  |
| :--- | :--- |
| PSYC 1101 | Foundations of Psychology |
| PSYC 3358 | Behavior Therapies |
| PSYC 3450 | Learning and Motivation |
| PSYC 4654 | Seminar in Behavioral Modifi |
| Electives |  |
| Complete two of the following: |  |
| PSYC 2352 | Childhood Mental Illness |
| PSYC 2356 | Nonverbal Communication |
| PSYC 3400 | Personality |
| PSYC 3404 | Developmental Psychology |
| PSYC 3466 | Cognition |

## Independent Specialization

With approval from the program director, an independent specialization, consisting of five courses, may be defined in consultation with your advisor.

## Human Services Major Credit Requirement

Complete 66 semester hours in the major.

Graduate Courses taken as an Undergraduate Student<br>CAEP 6200<br>Introduction to Counseling: Theory and Process in an Ecological Context

## Program Requirement

128 total semester hours required
Minimum GPA of 3.000 is required in all graduate courses.
American Sign Language and Human Services, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## American Sign Language and Human Services CombinedMajor Requirements

Code Title

Hours

## American Sign Language

AMSL 1101 Elementary ASL 1 4
4 AMSL 1102 Elementary ASL $2 \quad 4$
AMSL 2101 Intermediate ASL 1 4
AMSL 2102 Intermediate ASL 2 4
AMSL 3101 Advanced ASL $1 \quad 4$
AMSL $3102 \quad$ Advanced ASL 24

Social and Cultural World

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


| Linguistics |  | 4 |
| :--- | :--- | :---: |
| LING 1150 | Introduction to Language and <br> Linguistics | 4 |
| DEAF 2700 | ASL Linguistics | 4 |

INTP $3500 \quad$ The Interpreting Profession 2
Interpreting
INTP $3510 \quad$ Interpreting Inquiry Texts 4
Human Services
HUSV 11014
HUSV $2300 \quad$ Counseling in Human Services 4
3 HUSV 4700 Senior Seminar in Human Services 4

| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| :---: | :---: | :---: |
| Research |  |  |
| HUSV 3700 | Research Methods for Human Services | 4 |
| Policy |  |  |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Organizations |  |  |
| SOCL 3440 | Sociology of Human Service Organizations | 4 |
| Human Services Elective |  |  |
| Complete o | in HUSV subject area. | 4 |
| Integrative Course Work |  |  |
| INTP 4940 | Interpreting Research Practicum | 4 |
| HUSV 4994 | Human Services Internship | 6 |

## Combined-Major GPA Requirement

Minimum 2.750 GPA required in all ASL courses

Minimum 2.500 overall GPA required
Combined-Major Credit Requirement
Complete 88 semester hours in the major.

## Program Requirements

128 total semester hours required

## Plan of Study

Four Years, No Co-op

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | H AMSL 1102 | 4 Vacation | 0 Vacation | 0 |
| AMSL 1101 | 4 MATH 1215 | 4 |  |  |
| DEAF 1500 | 4 MATH |  |  |  |
| HUSV 1101 | 4 HSVC <br> elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| AMSL 2101 | 4 AMSL 2102 | 4 Vacation | 0 Vacation | 0 |
| LING 1150 | 4 DEAF 2700 | 4 |  |  |
| INTP 4560 | 4 HUSV 2300 | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| DEAF 2500 | 4 HUSV 3700 | 4 Vacation | 0 Vacation | 0 |
| SOCL 3440 | 4 Elective | 4 |  |  |
| INTP 3510 | 4 ENGW 3315 | 4 |  |  |
| AMSL 3101 | 4 AMSL 3102 | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| INTP 4940 | 4 HUSV 4700 | 4 |
| HUSV 3900 | 4 Elective | 4 |
| HUSV 4994 | 6 Elective | 4 |


| Elective | 4 Elective | 4 |
| :--- | :---: | ---: |
| 18 | 16 |  |

Total Hours: 130

## Human Services and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Human Services Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Research |  |  |
| Complete on | following: | 4 |


| HUSV 3700 | Research Methods for Human Services |  |
| :--- | :--- | :--- |
| SOCL 2321 | Research Methods in Sociology |  |
| Organization | Sociology of Human Service <br> Organizations | 4 |
| SOCL 3440 |  |  |

Internship
HUSV 4994 Human Services Internship 6

Human Services Electives
Complete two additional HUSV courses. 8

## Communication Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Communication Studies Common Requirements |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |

Foundation Course
Complete one of the following: 4

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1225 | Communication Theory |
| COMM 1231 | Principles of Organizational <br> Communication |


| COMM 1255 | Communication in a Digital Age |  |
| :---: | :---: | :---: |
| COMM 1310 | Classical Foundations of Communication |  |
| Cluster Course |  |  |
| Complete one of the following: |  | 4 |
| COMM 1131 | Sex, Relationships, and Communication |  |
| COMM 2303 | Global and Intercultural Communication |  |
| COMM 2304 | Communication and Gender |  |
| COMM 2501 | Communication Law |  |
| COMM 2551 | Free Speech in Cyberspace |  |
| Writing-Intensive Courses |  |  |
| Complete two of the following: |  | 8 |
| COMM 3201 | Health Communication |  |
| COMM 3230 | Interpersonal Communication |  |
| COMM 3331 | Argumentation and Debate |  |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |  |
| COMM 3415 | Communication Criticism |  |
| COMM 3501 | Free Speech: Law and Practice |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| COMM 3610 | Communication, Politics, and Social Change |  |
| COMM 4131 | Sex and Interpersonal Communication |  |
| COMM 4535 | Nonverbal Social Interaction |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology |  |
| COMM 4901 | Seminar in Communications |  |
| COMM 4918 | Special Topics in Communication Studies |  |
| Communication Studies Electives |  |  |
| Complete three of the following: |  | 12 |
| COMM 1331 | Legal Argumentation, Advocacy, and Citizenship |  |
| COMM 1412 | Social Movement Communication |  |
| COMM 1414 | Great Speakers and Speeches 1, 16301930 |  |
| COMM 1511 | Communication and Storytelling |  |
| COMM 1990 | Elective |  |
| COMM 2105 | Social Networks |  |
| COMM 2312 | Voice and Articulation |  |
| COMM 2350 | Producing for the Entertainment Industry |  |
| COMM 2402 | Presentation, Style, and Professional Communication |  |
| COMM 2450 | Sound Production for Digital Media |  |
| COMM 2451 | Sports Broadcasting |  |
| COMM 2454 | Broadcast Management and Programming |  |
| COMM 2531 | Application of Organizational Communication |  |
| COMM 2990 | Elective |  |
| COMM 3306 | International Communication Abroad |  |
| COMM 3409 | Advocacy Writing |  |
| COMM 3451 | Advertising Practices |  |
| COMM 3534 | Group Communication |  |


| COMM 3550 | Television Field Production |
| :--- | :--- |
| COMM 3650 | Television Studio Production |
| COMM 3990 | Elective |
| COMM 4630 | Assessment Technique and Planning |
| COMM 4650 | Digital Editing for TV |
| COMM 4750 | Advanced Digital Editing for TV and |
| COMM 4916 | Film |
| COMM 4940 | Sracticum |
| COMM 4990 | Elective |
| COMM 4992 | Directed Study |
| COMM 4993 | Independent Study |
| COMM 4994 | Internship in Communication |
| COMM 4996 | Experiential Education Directed Study |

## Capstone

Code Title Hours

Communications Capstone Option
Complete one of the following: 4

| COMM 4102 | Health Communication Campaigns |
| :--- | :--- |
| COMM 4530 | Communication and Quality of Life |
| COMM 4533 | Consultation Skills |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |

Complete one additional HUSV elective. 4

Human Services Capstone Option
HUSV 4700 Senior Seminar in Human Services 4
Complete one course from the following range: 4

COMM 3000 to COMM 4999

## Integrative Course

Code Title Hours

HUSV 5200 Strategic Communications for 3

## Program Requirement

128 total semester hours required

## Human Services and Criminal Justice, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Foundation Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to the Major |  |  |
| CRIM 1000 or HUSV 1000 | Criminal Justice at Northeastern Human Services at Northeastern | 1 |
| Criminal Justice Foundation Courses |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 1300 | The Death Penalty | 4 |
| or CRIM 1400 | Human Trafficking |  |
| or CRIM 1500 | Corruption, Integrity, and Accountability |  |
| or CRIM 1600 | Crimes against Humanity |  |
| or CRIM 1700 | Crime, Media, and Politics |  |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| CS 1100 | Computer Science and Its Applications | 4 |


| Human Services Foundation Courses |  |  |
| :--- | :--- | ---: |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |


| Upper-Level Courses |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| Policy Course | Introduction to Social Policy |  |
| HUSV 3900 | Sociology of Human Service |  |
| Organization Course | 4 |  |
| SOCL 3440 | Organizations |  |
| or CRIM 4030 | Criminal Justice Organization and Management |  |

Survey Electives
Complete two of the following: 8

| CRIM 3010 | Criminal Violence |
| :--- | :--- |
| CRIM 3020 | Victims of Crime |
| CRIM 3030 | Global Criminology |
| CRIM 3040 | Psychology of Crime |
| CRIM 3050 | Organized Crime |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |
| CRIM 3300 | Corrections |
| CRIM 3400 | Security |
| CRIM 3500 | Policing |
| CRIM 3900 | Topics in Criminal Justice and |

## Research Methods

CRIM $3600 \quad$ Criminal Justice Research Methods 4
or HUSV 3700 Research Methods for Human Services
Criminal Justice Elective
Complete one of the following:

| CRIM 4010 | Gender, Crime, and Justice |
| :--- | :--- |
| CRIM 4020 | Race, Crime, and Justice |


| CRIM 4030 | Criminal Justice Organization and <br> Management |
| :--- | :--- | :--- |
| CRIM 4040 | Crime Prevention |
| Statistics |  |
| Complete one of the following: |  |
| CRIM 3700 | Criminal Justice Statistics |
| PSYC 2320 | Statistics in Psychological Research |
| SOCL 2320 | Statistical Analysis in Sociology |

## Human Services Internship

| Code | Title | Hours |
| :--- | :--- | ---: |
| HUSV 4994 | Human Services Internship | 6 |

## Integrative Course

| Code | Title | Hours |
| :--- | :--- | ---: |
| CRIM 4949 | Senior Capstone Seminar | 4 |
| or HUSV 4700 | Senior Seminar in Human Services |  |

## Open Electives

| Code | Title | Hours |
| :---: | :---: | :---: |
| Complete seve criminal justic | ses. Two of these courses must be in our must be in human services. | 28 |
| Cooperative Education for Criminal Justice |  |  |
| Code | Title | Hours |
| Co-op Integration Seminar1/Professional Development |  |  |
| All students should complete one of the following: |  |  |
| CRIM 2000 Co-op Integration Seminar 1 |  |  |
| EESH 2000 Professional Development for Co-op |  |  |
| Co-op Integration Seminars 2 and 3 |  |  |
| Co-op students should complete the following: |  |  |
| CRIM 3000 | Co-op Integration Seminar 2 | 1 |
| CRIM 4000 | Co-op Integration Seminar 3 | 1 |

Non-co-op students should complete an additional 2 semester hours of open elective credit.

## Program Requirement

128 total semester hours required
Plan of Study
Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HUSV 1000 | 1 | CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 | HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 | CS 1100 | 4 |  |  |
| ENGW 1111 |  | HSVC elective | 4 |  |  |
| MATH 1215 | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CRIM 2100 | 4 | CRIM 2000 | 1 Vacation | 0 Co-op | 0 |
| CRIM 2200 | 4 | CJ concentrat elective | 4 |  |  |


| HSVC <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 CJ <br> concentration <br> elective | 4 |  |
| :--- | :--- | :---: | :--- |
| Elective | 4 Elective | 4 |  |
|  | Elective | 4 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CRIM 3000 | 1 CRIM 3600 | 4 Co-op | 0 |
|  | Elective | 4 Elective | 4 |  |
|  | HUSV 3900 | 4 |  |  |
|  | HSVC <br> organization <br> course | 4 |  | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 CRIM 4000 | 1 Elective | 4 Co-op | 0 |
|  | CJ system- |  |  |  |
| wide elective | 4 Elective | 4 |  |  |
|  | ENGW 3315 | 4 |  |  |
|  | Elective | 4 |  | 0 |
|  | CRIM 3700 | 4 | 8 |  |


| Year 5 |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours |
| Co-op | 0 | HUSV 4994 | 6 |
|  |  | Elective | 4 |
|  |  | CRIM 4949 <br> or HUSV 4700 | 4 |
|  |  | Elective | 4 |
| 0 |  |  | 18 |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HUSV 1000 | 1 CRIM 1200 | 4 Vacation | 0 Vacation | 0 |
| CRIM 1100 | 4 HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 CS 1100 | 4 |  |  |
| ENGW 1111 | 4 HSVC <br> elective | 4 |  |  |
| MATH 1215 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CRIM 2100 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| CRIM 2200 | 4 |  | Elective | 4 |
| CRIM 2000 | 1 |  |  |  |
| HUSV 2300 | 4 |  |  |  |


| Elective | 4 |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
|  | 17 | 0 | 0 | 8 |
| Year 3 |  |  |  |  |$\quad$ Hours Spring $\quad$| Hours Summer 1 |
| :---: |
| Fall |$\quad$| Hours Summer 2 |
| :---: |
| CJ |
| concentration <br> elective |
| CJ <br> concentration <br> elective |
| Elective |


| Year 4 |  | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | 0 Co-op | 0 Vacation | 0 |
| CRIM 3600 | 4 Co-op | 4 |  |  |
| HSVC <br> organization <br> course | 4 |  |  |  |
| CJ system- <br> wide elective | 4 |  |  |  |
| Elective |  |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CRIM 3700 | 4 Elective | 4 |
| HUSV 4994 | 6 Elective | 4 |
| ENGW 3315 | 4 CRIM 4949 <br> or HUSV <br> 4700 | 4 |
| Elective | 4 Elective | 4 |
|  | 18 | 16 |

Total Hours: 134

## Human Services and Sociology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Human Services Requirements
Code Title Hours

Human Services Overview
HUSV 1101

| HUSV 2300 | Counseling in Human Services | 4 |
| :--- | :--- | ---: |
| HUSV 3570 | Strategic Philanthropy and Nonprofit |  |
| Management |  |  |$\quad 4$


| SOCL 1287 | Sociology of Religion |
| :--- | :--- |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |
| ANTH 1101 | Peoples and Cultures |

Intermediate-Level Elective
Complete one of the following:
Complete one of the following:
SOCL 2205 Law and Social Justice

| SOCL 2268 | Social Movements |
| :--- | :--- |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 2358 | Current Issues in Cities and Suburbs |
| SOCL 2450 | Class, Power, and Social Change |
| SOCL 3402 | Feminist Perspectives on Society |
| SOCL 3406 | Class, Crime, and the Legal System |
| SOCL 3407 | The Immigrant Experience: Ethnicity, <br> Race, and Inequality in America |


| SOCL 3437 | Children and Youth in Contemporary <br> Society |
| :--- | :--- |
| SOCL 3441 | Sociology of Health and Illness |

SOCL $3451 \quad$ Privilege
SOCL 3455 Seminar in Urban Sociology
SOCL 3460 Sociology of Latino Society
SOCL $3470 \quad$ Social Conflict and Community Service
SOCL $3471 \quad$ Social Conflict and Community Services Abroad
SOCL $3487 \quad$ Applied Sociology: Practice and Theory
ANTH 2302 Gender and Sexuality: A Cross-Cultural Perspective

| ANTH 2305 | Global Markets and Local Culture |
| :--- | :--- |
| ANTH 2312 | The Anthropology of Masculinity |
| ANTH 2315 | Religion and Modernity |
| ANTH 2330 | Environmental Anthropology |
| ANTH 2350 | Urban Anthropology |
| ANTH 3417 | Political Anthropology |

Advanced-Level Elective
Complete one of the following: 4

| SOCL 4514 | "The Wire" and the Study of Urban <br> Inequalities |
| :--- | :--- |
| SOCL 4518 | Law and Social Issues |
| SOCL 4519 | Seminar in Social Psychology |
| SOCL 4520 | Race, Class, and Gender |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |
| SOCL 4521 | Ethnic, Racial, and Religious Identity |
| SOCL 4523 | Sexualities |
| SOCL 4530 | Seminar in the Family |
| SOCL 4580 | Special Topics in Sociology |
| ANTH 4350 | Ethnography of Southeast Asia |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |
| ANTH 4580 | Special Topics in Anthropology |

[^22]Note: With permission of the sociology head advisor, the student may complete human services capstone HUSV 4700 and substitute one advanced sociology elective for SOCL 4600.
SOCL 4600 Senior Seminar

## Human Services/Sociology Integrative Course <br> Code Title <br> HUSV 2350 Ethnic Relations, Cultural Identity, and Human Services

## Human Services and Sociology Combined-Major Credit Requirement

Complete 60 semester hours in the major.

## Program Requirement

128 total semester hours required

## Human Services, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| HUSV 1101 | Human Services Professions | 4 |
| :--- | :--- | :--- |
| HUSV 2300 | Counseling in Human Services | 4 |

## Policy Course

HUSV 3900 Introduction to Social Policy

## Organization Course

Complete one of the following:

| HUSV 3570 | Strategic Philanthropy and Nonprofit <br> Management |
| :---: | :--- |
| SOCL 3440 | Sociology of Human Service <br> Organizations |

## Human Services Elective

Complete one HUSV course.

## GPA Requirement

2.000 GPA required in the minor

## International Affairs

Website (http://www.northeastern.edu/internationalaffairs)

## Valentine M. Moghadam, PhD

Professor, Sociology and International Affairs, and Director, International Affairs Program

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Ioannis Livanis, Advisor, i.livanis@northeastern.edu
International affairs is an interdisciplinary major in the College of Social Sciences and Humanities. The program is designed to prepare
undergraduate students with the knowledge and skills needed to thrive and lead in a diverse world society while promoting global citizenship and social responsibility.

## Academic Progression Standards

It is recommended that students majoring in international affairs maintain a minimum 3.000 grade-point average until the beginning of their international experience in order to be eligible for the majority of the study-abroad options.

## Cooperative Education

Cooperative education is recommended for all students pursuing a major or combined major in international affairs.

## Programs

## Bachelor of Arts (BA)

- International Affairs (p. 688)
- International Affairs with African Studies Concentration (p. 692)
- International Affairs with Asian Studies Concentration (p. 694)
- International Affairs with European Studies Concentration (p. 696)
- International Affairs with Latin American Studies Concentration (p. 698)
- International Affairs with Middle East Studies Concentration (p. 699)
- Environmental Studies and International Affairs (p. 701)
- Human Services and International Affairs (p. 705)
- International Affairs and Cultural Anthropology (p. 709)
- International Affairs and Economics (p. 712)
- International Affairs and Religious Studies (p. 716)
- Languages, Literatures, and Cultures and International Affairs (p. 721)
- Political Science and International Affairs (p. 725)


## Minors

- International Affairs (p. 731)
- Middle East Studies (p. 733)


## International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. Peoples and Cultures (ANTH 1101), The World Since 1945 (HIST 2211), and International Relations (POLS 1160) may not be used as global dynamics courses. See department for additional courses.

Required Courses

| INTL 1101 | Globalization and International Affairs | 4 |
| :---: | :---: | :---: |
| INTL 3400 | International Conflict and Negotiation | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| POLS 1160 | International Relations | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| ECON 1115 <br> or ECON 1116 | Principles of Macroeconomics <br> Principles of Microeconomics | 4 |
| Global Dynamics |  |  |
| Complete three of the following: |  | 10-12 |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 1185 or INTL 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |
| MSCR 2325 | Global Media |  |
| COMM 5240 | Global and Intercultural Media |  |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  |
| CRIM 4630 | Political Crime and Terrorism |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 1291 | Development Economics |  |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 4635 | International Economics |  |
| ENGL 2450 | Postcolonial Literature |  |


| ENTR 2206 | Global Social Enterprise |
| :---: | :---: |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global Social Responsibility International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |


| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 3471 | Social Conflict and Community <br> Services Abroad |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |

## Senior Seminar/Experiential Learning

| INTL 4700 | Senior Capstone Seminar in <br> International Affairs | 4 |
| :--- | :--- | :--- |

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two short-term programs.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Africa |  |  |
| :---: | :---: | :---: |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia <br> Ethnography of Southeast Asia | 4 |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |


| HIST 1189 | Introduction to South Asian History | 4 |
| :---: | :---: | :---: |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |


| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| :---: | :---: | :---: |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \quad \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

International Affairs Foreign Language Requirement
Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the $B A$ degree.

## International Affairs Major Credit/GPA Requirement

Complete 52 semester hours in the major with a 2.000 GPA.

## Upper-Division Electives

Complete three general electives at 3000 level or above that do not double-count with the major or NUpath.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 1000 | 1 MATH 1215 | 4 Vacation | 0 Vacation | 0 |
| INTL 1101 | 4 HIST 2211 | 4 |  |  |
| ENGW 1111 | F Foreign <br> language <br> course | 4 |  |  |
| Foreign <br> language <br> course | 4 POLS 1160 | 4 |  |  |
| ANTH 1101 | 4 POLS 1161 | 0 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 1115 <br> or 1116 | 4 INTL elective | 4 Vacation | 0 Co-op | 0 |
| Elective | 4 Foreign <br> language <br> course | 4 |  |  |
| Elective | 4 INTL elective | 4 |  |  |
| Foreign <br> language <br> course | 4 Elective | 4 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 INTL 3400 | 4 INTL elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
|  | INTL elective | 4 |  |  |
|  | Upper <br> division <br> elective | 4 |  | 0 |
|  | 0 | 16 | 8 | Hours |
| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 |  |
| Fall | 0 INTL elective | 4 Elective | 4 Co-op | 0 |
| Co-op | INTL elective | 4 Elective | 4 |  |


| Upper <br> division <br> elective | 4 |  |  |
| :--- | ---: | :--- | ---: |
| Elective | 4 | 8 | 0 |


| Year 5 | Hours Spring | Hours |
| :--- | :---: | ---: |
| Fall | 0 INTL 4700 | 4 |
| Co-op | Elective | 4 |
| Upper <br> division <br> elective | 4 |  |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 1 MATH 1215 | 4 Vacation | 0 Vacation | 0 |
| INTL 1000 | 4 HIST 2211 | 4 |  |  |
| INTL 1101 | Foreign <br> language <br> course | 4 |  |  |
| ENGW 1111 | 4 POLS 1160 | 4 |  |  |
| Foreign <br> language <br> course | 4 POLS 1161 | 0 | 0 | 0 |
| ANTH 1101 | 17 | 16 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL elective | 4 Co-op | 0 Co-op | 0 INTL elective | 4 |
| Foreign <br> language <br> course | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  | 8 |
|  | 17 | 0 | 0 |  |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ECON 1115 <br> or 1116 | 4 Co-op | 0 Co-op | 0 |  |
| Elective | 4 |  | Elective | 4 |
| INTL elective | 4 |  |  | 4 |
| Foreign <br> language <br> course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 3400 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3315 | 4 |  |  |  |
| INTL elective | 4 |  |  |  |


| Upper <br> division <br> elective | 4 |  |  |  |
| :--- | :---: | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 0 |

Year 5
$\left.\begin{array}{lcc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \text { INTL elective } & 4 \text { INTL 4700 }\end{array}\right) 4$

Total Hours: 130

## International Affairs with African Studies Concentration, BA

## Program Requirements

Note: Students double majoring in international affairs and political science may only count two political science courses toward the international affairs major.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

## Required Courses

| AFRS 1101 | Introduction to African Studies | 4 |
| :--- | :--- | :--- |
| ANTH 1101 | Peoples and Cultures | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or ECON 1116 | Principles of Microeconomics | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1155 | Comparative Politics | 4 |

## African Studies Regional Analysis Courses

Select courses taken during a study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses. Complete four of the following, at least two of which must be numbered 2000 or above:

AFRS 1128
The African Experience through Music

| AFRS 2307 | Africa Today |  | CLTR 1515 | marative Analysis of the Lusoph |
| :---: | :---: | :---: | :---: | :---: |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa |  |  | World and Culture |
|  |  |  | CRIM 4630 | Political Crime and Terrorism |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya |  | ECON 1290 | History of the Global Economy |
| AFRS 3460 | Contemporary Government and Politics in Africa |  | ECON 1291 | Development Economics |
|  |  |  | ECON 3404 | International Food Economics and |
| AFRS 4939 | Community Health, Culture, and Development in Kenya |  |  | Policy |
|  |  |  | ECON 4635 | International Economics |
| AFRS 3645 | National Model African Union |  | ENGL 2450 | Postcolonial Literature |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa |  | ENTR 2206 | Global Social Enterprise |
|  |  |  | ENTR 3306 | Global Entrepreneurship |
| ENTR 3306 | Global Entrepreneurship |  | ENVR 1110 | Global Climate Change |
| ENTR 3308 | Business Economic History of South Africa |  | ENVR 4515 | Sustainable Development |
|  |  |  | HIST 1110 | Introduction to World History |
| HIST 1180 | African History |  | HIST 1218 | Pirates, Planters, and Patriots: Making |
| HIST 2390 | Africa and the World in Early Times |  |  | the Americas, 1492-1804 |
| HIST 2397 | Modern Africa |  | HIST 2211 | The World Since 1945 |
| MUSC 1128 | Music of Africa |  | HIST 2214 | War in the Modern World |
| Global Dynamics |  |  | HIST 2311 | Colonialism/Imperialism |
| POLS 1160 | International Relations | 4 | HIST 2312 | Global Migration |
| Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. The World Since 1945 (HIST 2211), Peoples and Cultures (ANTH 1101), and Comparative Politics (POLS 1155) may not be used as global dynamics courses. See department for additional courses |  |  | HIST 2315 | Approaches to World History |
|  |  |  | HIST 2317 | Comparative Urban Histories |
|  |  |  | HIST 2398 | Radicals, Terrorists, and Insurgents |
|  |  |  | HIST 3412 | Global Environmental History |
| Complete one of the following: |  | 4 | HIST 3452 | Global Chinese Migration |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora |  | HUSV 4920 | International Human Services |
|  | Gender in the African Diaspora |  | INTB 1203 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTL 2240 | Global Population and Development |  | or INTB 1209 |  |
| INTL 2300 | Religion in International Affairs |  |  |  |
| INTL 2400 | Politics of Islam and Gender |  | INTB 3310 |  |
| INTL 2480or WMNS 2480 | Women and World Politics |  |  | Business |
|  | Women and World Politics |  | JRNL 3300 |  |
| INTL 3200 | Cities in a Global Context |  |  | Media |
| INTL 3460 | Transnational Activism in Global Civil Society |  | or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
|  |  |  | JRNL 5360 | Global Reporting |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  | LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  | MUSC 1127 | Introduction to World Music |
| AFAM 2301 | Foundations of Black Culture 2 |  | MUSC 1140 | Global Pop Music |
| AFAM 2345 | The Black Experience in the Caribbean |  | PHIL 1155 | Introduction to Human Rights |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  | PHIL 2302 | Philosophical Problems of War and Peace |
|  |  |  | PHIL 5001 | Global Justice |
| AFAM 2639 | Globalism, Racism, and Human Rights |  | PHIL 5003 | Ethics, Justice, and Global Climate |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |  | Change |
|  |  |  | PHTH 5230 | Global Health |
| ANTH 1101 | Peoples and Cultures |  | POLS 1155 | Comparative Politics |
| ANTH 2305 | Global Markets and Local Culture |  | POLS 1160 | International Relations |
| ANTH 2315 | Religion and Modernity |  | POLS 2370 | Religion and Politics |
| ANTH 2350 | Urban Anthropology |  | POLS 3405 | International Political Economy |
| ANTH 3415 | Anthropology of Travel and Tourism |  | POLS 3406 | International Law |
| COMM 2303 | Global and Intercultural Communication |  | POLS 3407 | International Organizations |
| MSCR 2325 | Global Media |  | POLS 3408 | International Security |
| COMM 5240 | Global and Intercultural Media |  | POLS 3410 | Nontraditional Security Issues |


| POLS 3415 | Ethnic Political Violence |
| :---: | :---: |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

## Senior Seminar/Experiential Learning

## INTL 4700 Senior Capstone Seminar in International Affairs

International Experience in Africa
Complete at least one "international semester" via study abroad, international internship, two Dialogue of Civilizations programs, or international co-op. International students may be exempt from the semester abroad (subject to advisor approval). If they do not complete an international semester, they must participate in Model African Union.

## Foreign Language Requirement

Complete language course work in Kiswahili, French, or Arabic through at least intermediate-level two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## 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 numbered 3000 or above.

## Program Requirement

128 total semester hours required

## International Affairs with Asian Studies Concentration, BA

## Program Requirements

Note: Students double majoring in international affairs and political science may only count two political science courses toward the international affairs major.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

## Required Courses

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ASNS 1150 | East Asian Studies | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or ECON 1116 | Principles of Microeconomics | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1155 | Comparative Politics | 4 |

Asian Studies Regional Analysis Courses
4 Select courses taken during a study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses. Complete four of the following, at least two of which must be 16 numbered 2000 or above:

| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia |
| :---: | :---: |
| ASNS 1150 | East Asian Studies |
| ASNS 4910 | Issues in Modern and Contemporary Asia |
| CLTR 1500 | Modern Chinese History and Culture |
| CLTR 1506 | Introduction to Chinese Popular Culture |
| CLTR 1700 | Introduction to Japanese Pop Culture |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| HIST 1189 | Introduction to South Asian History |
| HIST 1252 | Japanese Literature and Culture |
| HIST 1253 | History of Vietnam Wars |
| HIST 1254 | Mao's China and After |
| HIST 1500 | Modern Chinese History and Culture |
| HIST 2351 | Modern Japan |
| HIST 2352 | Dictators and Democracy in Japan and Korea |
| HIST 3452 | Global Chinese Migration |
| HIST 4942 | East Asian Cultural History Abroad |
| POLS 3485 | China: Governance and Foreign Policy |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 4545 | Religion and Politics in South Asia |
| Global Dynamics |  |


| POLS 1160 | International Relations |
| :--- | :--- |
| Complete one of the following: |  |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |


| HUSV 4920 | International Human Services |
| :---: | :---: |
| INTB 1203 or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |
| Senior Seminar/Experiential Learning |  |
| INTL 4700 | Senior Capstone Seminar in International Affairs |
| International Experience in Asia |  |

Complete at least one "international semester" via study abroad, international internship, two Dialogue of Civilizations programs, or international co-op. International students may be exempt from the semester abroad (subject to advisor approval).

## Foreign Language Requirement

Complete language course work in Chinese or Japanese through at least intermediate-level two. Note: Completing this requirement satisfies the language requirement for the $B A$ degree.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. The World Since 1945 (HIST 2211), Peoples and Cultures (ANTH 1101), and Comparative Politics (POLS 1155) may not be used as global dynamics courses. See department for additional courses.

## International Affairs Major Credit/GPA Requirement

Complete 60 semester hours in the major with a 2.000 GPA.

## Upper-Division Electives

Complete three general electives numbered 3000 or above.

## Program Requirement

128 total semester hours required

## International Affairs with European Studies Concentration, BA

## Program Requirements

Note: Students double majoring in international affairs and political science may only count two political science courses toward the international affairs major.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

| Required Courses |  | 4 |
| :--- | :--- | ---: |
| ANTH 1101 | Peoples and Cultures | 4 |
| INTL 1101 | Globalization and International Affairs | 4 |
| ECON 1115 | Principles of Macroeconomics |  |
| or ECON 1116 | Principles of Microeconomics | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| POLS 1155 | Comparative Politics |  |

POLS 3435
Politics and Governance of Europe and the European Union

## European Studies Regional Analysis Courses

Select courses taken during a study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses.
Complete four of the following, at least two of which must be numbered 2000 or above:

| CLTR 1501 | Introduction to French Culture |
| :---: | :---: |
| CLTR 1503 | Introduction to Italian Culture |
| CLTR 1504 | Introduction to Spanish Culture |
| CLTR 2280 | French Film and World War II: The German Occupation of France |
| ECON 1293 | European Economic History |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath |
| HIST 1270 | Ancient Greece |
| HIST 1271 | Ancient Rome |
| HIST 2280 | Hitler, Germany, and the Holocaust |
| HIST 2371 | Europe 1870-1921 |
| HIST 2372 | Gender and Society in Modern Europe |
| HIST 2376 | The British Empire |
| HIST 4946 | Independent Field Research Abroad: Central Europe |
| POLS 3435 | Politics and Governance of Europe and the European Union |
| POLS 4917 | Model European Union |
| SOCL 4535 | European Union: Social and Political |
| Global Dynamics |  |
| POLS 1160 | International Relations |
| Complete one of the following: ${ }^{1}$ |  |


| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |
| :---: | :---: |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |
| AFAM 2301 | Foundations of Black Culture 2 |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |


| ANTH 2350 | Urban Anthropology |
| :---: | :---: |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 | International Business and Global Social Responsibility |
| or INTB 1209 | International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |


| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1271 1272 | Sex in Judaism, Christianity, and Islam <br> Ethics in the World's Religions <br> SOCL 1246 1283 |
| SOCL 3465 | Globalization and Social Change <br> Globalization and the Evolution of <br> Human Societies |
| SOCL 3471 | Social Conflict and Community <br> Services Abroad |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |

## Senior Seminar/Experiential Learning

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INTL 4700 Senior Capstone Seminar in
    International Affairs
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## International Experience in Europe

Complete at least one "international semester" via study abroad, international internship, two Dialogue of Civilizations programs, or international co-op. International students may be exempt from the semester abroad (subject to advisor approval). If they do not complete an international semester, they must participate in either Model European Union or Model NATO.

## Foreign Language Requirement

Complete language course work in French, German, Greek, Italian, Portuguese, or Spanish through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. The World Since 1945 (HIST 2211), Peoples and Cultures (ANTH 1101), and Comparative Politics (POLS 1155) may not be used as global dynamics courses. See department for additional courses.

## International Affairs Major Credit/GPA Requirement

Complete 60 semester hours in the major with a 2.000 GPA.

## Upper-Division Electives

Complete three general electives numbered 3000 or above.

## Program Requirements

128 total semester hours required

International Affairs with Latin American Studies Concentration, BA

## Program Requirements

Note: Students double majoring in international affairs and political science may only count two political science courses toward the international affairs major.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

## Required Courses

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or ECON 1116 | Principles of Microeconomics |  |
| HIST 2211 | The World Since 1945 | 4 |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean | 4 |
|  | Studies |  |
| POLS 1155 | Comparative Politics | 4 |

Latin American Studies Regional Analysis Courses
Select courses taken during a study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses.
Complete four of the following, at least two of which must be
numbered 2000 or above:

| AFAM 2301 | Foundations of Black Culture 2 |
| :--- | :--- |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 4507 | Afro-Cuban Culture-International Study |
| ANTH 4500 | Latin American Society and <br> Development |
| CLTR 1505 4500 | Latin American Society and Development |
| CLTR 1508 | Cuban History and Culture through Film |
| CLTR 1509 | An Introduction to Afro-Cuban Culture |
| CLTR 1240 | Latin American Film |
| CLTR 4507 | Afro-Cuban Culture-International Study |
| CLTR 4508 | Cuban History through Film- <br> International Study |


| ENTR 3316 | Microfinance and Economic Development in Latin America |  |
| :---: | :---: | :---: |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America |  |
| ENTR 3326 | Sustainability in the Latin American Business Environment |  |
| ENVR 2942 | Maritime History and Culture: The Caribbean |  |
| HIST 1187 | Introduction to Latin American History |  |
| HIST 1260 | Modern Latin America |  |
| LACS 1220 | Latino, Latin American, and Caribbean Studies |  |
| LITR 1260 | Caribbean Literature and Culture |  |
| LITR 4655 | Latin American Literature |  |
| POLS 3475 | Government and Politics in Latin America |  |
| Global Dynamics |  |  |
| POLS 1160 | International Relations | 4 |
| Complete one of the following: ${ }^{1}$ |  | 4 |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |
| MSCR 2325 | Global Media |  |
| COMM 5240 | Global and Intercultural Media |  |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  |
| CRIM 4630 | Political Crime and Terrorism |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 1291 | Development Economics |  |
| ECON 3404 | International Food Economics and Policy |  |


| ECON 4635 | International Economics |
| :---: | :---: |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global Social Responsibility International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |


| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| :--- | :--- |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 3471 | Social Conflict and Community <br> Services Abroad |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |

## Senior Seminar/Experiential Learning

## INTL 4700

Senior Capstone Seminar in 4

## International Experience in Latin America

Complete at least one "international semester" via study abroad, international internship, two Dialogue of Civilizations programs, or international co-op. International students may be exempt from the semester abroad (subject to advisor approval).

## Foreign Language Requirement

Complete language course work in Portuguese or Spanish through at least intermediate-level two. Note: Completing this requirement satisfies the language requirement for the BA degree.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. The World Since 1945 (HIST 2211), Peoples and Cultures (ANTH 1101), and Comparative Politics (POLS 1155) may not be used as global dynamics courses. See department for additional courses.

## International Affairs Major Credit/GPA Requirement

Complete 60 semester hours in the major with a 2.000 GPA.

## Upper-Division Electives

Complete three general electives numbered 3000 or above.

## Program Requirement

128 total semester hours required

International Affairs with Middle East Studies Concentration, BA

## Program Requirements

Note: Students double majoring in international affairs and political science may only count two political science courses toward the international affairs major.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Major Requirements

| Required Courses |  |  |
| :--- | :--- | ---: |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 1160 | Middle East Studies | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| POLS 1155 | Comparative Politics | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or ECON 1116 | Principles of Microeconomics |  |

Middle East Regional Analysis Courses
Select courses taken during a study abroad or specific
Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses.
Complete four of the following, at least two of which must be 16 numbered 2000 or above: ${ }^{1}$

| INTL 1160 | Middle East Studies |
| :--- | :--- |
| INTL 2100 | Modern Israel |
| INTL 2200 | America and the Middle East |
| INTL 2360 | Human Rights in the Middle East <br> INTL 2400 |
| Politics of Islam and Gender |  |, | Democracy and Development in North |
| :--- |
| Africa and the Mediterranean |$|$| Introduction to Arabic Culture |
| :--- | :--- |


| Complete one of the f | following: ${ }^{2}$ | 4 |
| :---: | :---: | :---: |
| INTL 1185 | Gender in the African Diaspora |  |
| or AFRS 1185 | Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 | Women and World Politics |  |
| or WMNS 2480 | Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |
| MSCR 2325 | Global Media |  |
| COMM 5240 | Global and Intercultural Media |  |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  |
| CRIM 4630 | Political Crime and Terrorism |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 1291 | Development Economics |  |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 4635 | International Economics |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENVR 1110 | Global Climate Change |  |
| ENVR 4515 | Sustainable Development |  |
| HIST 1110 | Introduction to World History |  |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |  |
| HIST 2211 | The World Since 1945 |  |
| HIST 2214 | War in the Modern World |  |
| HIST 2311 | Colonialism/Imperialism |  |
| HIST 2312 | Global Migration |  |
| HIST 2315 | Approaches to World History |  |
| HIST 2317 | Comparative Urban Histories |  |
| HIST 2398 | Radicals, Terrorists, and Insurgents |  |
| HIST 3412 | Global Environmental History |  |


| HIST 3452 | Global Chinese Migration |
| :---: | :---: |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global Social Responsibility <br> International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |
| Senior Seminar/Experiential Learning |  |
| INTL 4700 | Senior Capstone Seminar in International Affairs |

Complete at least one "international semester" via study abroad, international internship, two Dialogue of Civilizations programs, or international co-op. International students may be exempt from the semester abroad (subject to advisor approval). If they do not complete an international semester, they must either (a) complete a Dialogue of Civilizations program, co-op, or internship or b) participate in Model United Nations or Model Arab League.

## Foreign Language Requirement

Complete language course work in Arabic or Hebrew through at least intermediate-level two. Note: Completing this requirement satisfies the language requirement for the $B A$ degree.
${ }^{1}$ Middle East Studies (INTL 1160) may not be used as a regional analysis course.
2 Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. The World Since 1945 (HIST 2211), Peoples and Cultures (ANTH 1101), and Comparative Politics (POLS 1155) may not be used as global dynamics courses. See department for additional courses.

## International Affairs Major Credit/GPA Requirement

Complete 60 semester hours in the major with a 2.000 GPA.

## Upper-Division Electives

Complete three general electives numbered 3000 or above.

## Program Requirement

128 total semester hours required

## Environmental Studies and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Environmental Studies Requirements

Code Title Hours

Social Science Component
Philosophy

| PHIL 1180 | Environmental Ethics | 4 |
| :---: | :--- | :---: |
| or PHIL 3480 | Environmental Philosophy |  |
| Sociology |  | 4 |
| SOCL 1246 | Environment and Society |  |

International Experience in the Middle East

| Political Science |  |  |
| :---: | :---: | :---: |
| POLS 2395 | Environmental Politics and Policy | 4 |
| Science Component |  |  |
| Biology |  |  |
| $\begin{aligned} & \text { BIOL } 1141 \\ & \quad \text { or BIOL } 1143 \end{aligned}$ | Microbes and Society Biology and Society | 4 |
| Earth and Environmental Sciences |  |  |
| Complete one of the following: |  | 4 |
| ENVR 1200 | Dynamic Earth |  |
| ENVR 1110 | Global Climate Change |  |
| ENVR 1112 | Environmental Geology |  |
| ENVR 1104 | Natural Disasters and Catastrophes |  |
| Environment |  |  |
| ENVR 1101 | Environmental Science | 4 |
| Quantitative Methods |  |  |
| Complete one of the following: |  | 4-5 |
| ENVR 3300 <br> and ENVR 3301 | Geographic Information Systems and Lab for ENVR 3300 |  |
| MATH 2280 | Statistics and Software |  |
| Planning |  |  |
| ENVR 5210 or ENVR 5250 | Environmental Planning Geology and Land-Use Planning | 4 |



| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |
| :---: | :---: |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |
| AFAM 2301 | Foundations of Black Culture 2 |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |


| ANTH 2305 | Global Markets and Local Culture |
| :---: | :---: |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |


| POLS 1160 | International Relations |
| :---: | :---: |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |
| International Experiential Learning |  |
| Complete at least one "international semester" via study abroad, international internship, international co-op, or two short-term programs. |  |
| International Relations (POLS 1160) and is not permitted to count in the Global Dynamics area for the Environmental Studies and International Affairs, BA as the course is required for the major. |  |

## Regional Analysis Requirement

Complete two regional analysis courses, both of which must be in one region, from the following lists. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code <br> Africa | Title | Hours |
| :--- | :--- | ---: |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in <br> Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics <br> in Africa | 4 |
| AFRS 3645 | National Model African Union | 4 |
| AFRS 4939 | Community Health, Culture, and <br> Development in Kenya | 4 |
| ANTH 4510 | Anthropology of Africa | 4 |


| or INTL 4510 | Anthropology of Africa |  |
| :--- | :--- | ---: |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South | 4 |
|  | Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa |  |

## Asia

| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| :---: | :---: | :---: |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: | 4 |

Eastern Religions

| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| :--- | :--- | :--- |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |

## Europe

| CLTR 1501 | Introduction to French Culture | 4 |
| :--- | :--- | ---: |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The <br> German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, <br> and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: <br> Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union | 4 |
| POLS 4917 | Model European Union | 4 |


| SOCL 4535 | European Union: Social and Political | 4 |
| :---: | :---: | :---: |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |


| PHIL 1285 | Jewish Religion and Culture | 4 |
| :--- | :--- | :--- |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet | 4 |
|  | Economic History |  |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Integrative Courses

| Code <br> Integrative Courses | Title | Hours |
| :--- | :--- | ---: |
| ECON 3423 | Environmental Economics | 4 |
| or ECON 1290 | History of the Global Economy | 4 |
| ENVR 4515 | Sustainable Development | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| INTL 4700 | Senior Capstone Seminar in | 4 |
| or ENVS 4997 | International Affairs <br> Senior Thesis |  |

## Environmental Studies and International Affairs CombinedMajor Credit Requirement

Complete 88 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-Ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 SOCL 1246 | 4 Vacation | 0 Vacation | 0 |
| ENVR 1101 | 4 ENVR 1445 | 4 |  |  |
| INTL 1101 | 4 HIST 2211 | 4 |  |  |
| POLS 1150 | 4 POLS 1155 | 4 |  | 0 |
| POLS 1151 | 0 POLS 1156 | 0 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENVR 1200 | 4 POLS 2395 | 4 Vacation | 0 Co-op | 0 |
| MATH 1251 | 4 PHIL 3480 | 4 |  |  |
| Foreign <br> language <br> course | 4 Foreign | 4 |  |  |
| language <br> course |  |  |  |  |


| INAF <br> regional anaylsis coourse | 4 INAF regional analysis course | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 | 16 |  | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 International experiential learning | 16 | ENVR 3300 | 4 Co-op | 0 |
|  |  |  | ENVR 3301 | 1 |  |
|  |  |  | INAF global dynamics course | 4 |  |
|  | 0 | 16 |  | 9 | 0 |


| Year 4 <br> Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3315 | 4 ECON 3423 | 4 Co-op | 0 |
|  | INTL 3400 | 4 INTL 4700 | 4 |  |
|  | ENVR 5210 | 4 |  |  |
|  | INAF global <br> dynamics <br> course | 4 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 <br>  <br>  <br>  <br>  <br>  <br> undergraduate <br> elective | 4 |
|  | INAF global <br> dynamics <br> course | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 SOCL 1246 | 4 Vacation | 0 Vacation | 0 |
| ENVR 1101 | 4 ENVR 1445 | 4 |  |  |
| INTL 1101 | 4 HIST 2211 | 4 |  |  |
| POLS 1150 | 4 POLS 1155 | 4 |  | 0 |
| POLS 1151 | 0 POLS 1156 | 0 | 0 |  |
|  | 16 | 16 |  |  |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENVR 1200 | 4 Co-op | 0 Co-op | 0 POLS 2395 | 4 |
| INAF | 4 |  | Foreign | 4 |
| regional <br> analysis |  | language <br> course |  |  |

course
Foreign
language
course

| MATH 1251 | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 8 |

Year 3
$\left.\begin{array}{lcccr}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \begin{array}{l}\text { International } \\ \text { experiential }\end{array} & 16 \text { Co-op } & 0 \text { Co-op } & 0 \begin{array}{c}\text { INAF global } \\ \text { dynamics } \\ \text { learning }\end{array} & \end{array} \begin{array}{l}\text { course }\end{array}\right]$

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENVR 5210 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| INAF global <br> dynamics <br> course | 4 |  |  |  |
| ENGW 3315 | 4 |  |  |  |
| INTL 3400 | 4 | 0 | 0 | 0 |
|  | 16 |  |  |  |

Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| PHIL 3480 | 4 | INTL 4700 | 4 |
| Foreign language course |  | INAF regional analysis course | 4 |
| INAF global dynamics course |  | ENVR undergraduate elective | 4 |
| ECON 3423 | 4 | Elective | 4 |
| 16 |  |  | 16 |

Total Hours: 129

## Human Services and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Human Services Requirements

| Code Title | Hours |  |
| :--- | :--- | :--- |
| Required Courses |  |  |


| HUSV 1101 | Human Services Professions | 4 | MSCR 2325 | Global Media |
| :---: | :---: | :---: | :---: | :---: |
| HUSV 2300 | Counseling in Human Services | 4 | COMM 5240 | Global and Intercultural Media |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 | CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| Research Methods |  |  | CRIM 4630 | Political Crime and Terrorism |
| HUSV 3700 | Research Methods for Human Services | 4 | ECON 1290 | History of the Global Economy |
| Policy |  |  | ECON 1291 | Development Economics |
| HUSV 3900 | Introduction to Social Policy | 4 | ECON 3404 | International Food Economics and |
| Organization |  |  |  | Policy |
| SOCL 3440 | Sociology of Human Service | 4 | ECON 4635 | International Economics |
|  | Organizations |  | ENGL 2450 | Postcolonial Literature |
| Internship |  |  | ENTR 2206 | Global Social Enterprise |
| HUSV 4994 | Human Services Internship | 6 | ENTR 3306 | Global Entrepreneurship |
| Human Services Elect | tives |  | ENVR 1110 | Global Climate Change |
| Complete two HUSV | courses. |  | ENVR 4515 | Sustainable Development |
|  |  |  | HIST 1110 | Introduction to World History |
| Code | Title | Hours | HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| Required Courses |  |  | HIST 2211 | The World Since 1945 |
| INTL 1101 | Globalization and International Affairs | 4 | HIST 2214 | War in the Modern World |
| INTL 3400 | International Conflict and Negotiation | 4 | HIST 2311 | Colonialism/Imperialism |
| POLS 1160 | International Relations | 4 | HIST 2312 | Global Migration |
| ECON 1115 | Principles of Macroeconomics | 4 | HIST 2315 | Approaches to World History |
| or ECON 1116 | Principles of Microeconomics |  | HIST 2317 | Comparative Urban Histories |
| or HIST 2211 | The World Since 1945 |  | HIST 2398 | Radicals, Terrorists, and Insurgents |
| Global Dynamics |  |  | HIST 3412 | Global Environmental History |
| Complete two of the f | following: ${ }^{1}$ | 8 | HIST 3452 | Global Chinese Migration |
| INTL 1185 | Gender in the African Diaspora |  | HUSV 4920 | International Human Services |
| or AFRS 1185 | Gender in the African Diaspora |  | INTB 1203 | International Business and Global |
| INTL 2240 | Global Population and Development |  |  | Social Responsibility |
| INTL 2300 | Religion in International Affairs |  | or INTB 1209 | International Business and Global Social |
| INTL 2400 | Politics of Islam and Gender |  |  | Responsibility |
| INTL 2480 <br> or WMNS 2480 | Women and World Politics Women and World Politics |  | INTB 3310 | Cultural Aspects of International Business |
| INTL 3200 | Cities in a Global Context |  | JRNL 3300 | Covering Conflicts: Peace, War, and the |
| INTL 3460 | Transnational Activism in Global Civil Society |  | or INTL 3300 | Media <br> Covering Conflicts: Peace, War, and the Media |
| INTL 4945 |  |  | JRNL 5360 | Global Reporting |
|  | in Comparative Perspective |  | LPSC 2302 | Global Human Rights: A Social and |
| INTL 5200 | Political Economy: Interdisciplinary |  |  | Economic Perspective |
|  | Perspectives |  | MUSC 1127 | Introduction to World Music |
| AFAM 2301 | Foundations of Black Culture 2 |  | MUSC 1140 | Global Pop Music |
| AFAM 2345 | The Black Experience in the Caribbean |  | PHIL 1155 | Introduction to Human Rights |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  | PHIL 2302 | Philosophical Problems of War and Peace |
| AFAM 2639 | Globalism, Racism, and Human Rights |  | PHIL 5001 | Global Justice |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  | PHIL 5003 | Ethics, Justice, and Global Climate Change |
|  |  |  | PHTH 5230 | Global Health |
| ANTH 1101 | Peoples and Cultures |  | POLS 1155 | Comparative Politics |
| ANTH 2305 | Global Markets and Local Culture |  | POLS 1160 | International Relations |
| ANTH 2315 | Religion and Modernity |  | POLS 2370 | Religion and Politics |
| ANTH 2350 | Urban Anthropology |  | POLS 3405 | International Political Economy |
| ANTH 3415 | Anthropology of Travel and Tourism |  | POLS 3406 | International Law |
| COMM 2303 | Global and Intercultural Communication |  | POLS 3407 | International Organizations |


| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International |

PHIL 1270 Judaism, Christianity, and Islam: Abrahamic Religions
PHIL 1271 Sex in Judaism, Christianity, and Islam
PHIL 1272 Ethics in the World's Religions
SOCL 1246 Environment and Society
SOCL 1283 Globalization and Social Change
SOCL 3465 Globalization and the Evolution of Human Societies
SOCL 3471 Social Conflict and Community Services Abroad
SOCL $4522 \quad$ Political Ecology and Environmental Justice

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two short-term programs.
${ }^{1}$ International Relations (POLS 1160) and International Conflict and Negotiation (INTL 3400) are not permitted to count in the Global Dynamics area for the Human Services and International Affairs, BA as they are required in other areas of the major.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |


| HIST 1180 | African History | 4 |
| :---: | :---: | :---: |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia <br> Ethnography of Southeast Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |


| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| :---: | :---: | :---: |
| ANTH 4500 <br> or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |


| Middle East |  |  |
| :--- | :--- | :--- |
| INTL 1160 | Middle East Studies | 4 |

INTL $2100 \quad$ Modern Israel 4

| INTL 2200 | America and the Middle East | 4 |
| :--- | :--- | :--- |
| INTL 2360 | Human Rights in the Middle East | 4 |

INTL $2400 \quad$ Politics of Islam and Gender 4

| INTL 3250 | Democracy and Development in North <br> Africa and the Mediterranean | 4 |
| :--- | :--- | :--- |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture | 4 |


|  | Independent Field Research Abroad |  |
| :--- | :--- | :--- |
| HIST 4945 | North African History Abroad | 4 |

JWSS $2500 \quad$ Zionism and the Challenges of Jewish 4

| POLS 3465 | Government and Politics in the Middle |
| :--- | :--- |
| East |  |


| POLS 3470 | Arab-Israeli Conflict | 4 |
| :--- | :--- | :--- |
| POLS 4915 | Model Arab League | 4 |


| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| :--- | :--- |


| PHIL 1280 | Encountering Islam: Traditions, <br> Debates, and Crosscultural Diversity | 4 |
| :--- | :--- | :--- |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  | 4 |
| HIST 1285 | Introduction to Russian Civilization | 4 |


| HIST 1286 | History of the Soviet Union | 4 |
| :--- | :--- | :--- |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet <br> Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia <br> or INTL 1215 | Society and Culture in Russia |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Human Services/International Affairs Integrative Courses

Complete Senior Seminar in Human Services (HUSV 4700) or Senior Capstone Seminar in International Affairs (INTL 4700) or both. Note, however, that students wishing to take HUSV 4700 but not INTL 4700 must meet with an INTL advisor to obtain approval for a substitute INTL course. Similarly, students wishing to take INTL 4700 but not HUSV 4700 must meet with an HUSV advisor to obtain approval for a substitute HUSV course. Substitute courses (HUSV or INTL) must be upper-division courses and must relate to the combined major.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Human Services |  | 4 |
| HUSV 4700 | Senior Seminar in Human Services | 4 |
| International Affairs |  | 4 |
| INTL 4700 | Senior Capstone Seminar in <br> International Affairs |  |

## Human Services and International Affairs Combined-Major Credit Requirement

Complete 90 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 | Elective | 4 Vacation | 0 Vacation | 0 |
| INTL 1000 |  | Foreign language course | 4 |  |  |
| INTL 1101 | 4 | HUSV 2300 | 4 |  |  |
| HUSV 1101 | 4 | ECON 1290 | 4 |  |  |
| elective |  |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Elective | 4 Vacation | Co-op | 0 |
| Foreign | 4 HUSV 3700 | 4 |  |  |
| language <br> course |  |  |  |  |


| INTL elective | 4 | HUSV 3900 | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HSVC elective | 4 | EXED 2000 | 1 |  |  |
|  |  | INTL 3400 | 4 |  |  |
|  | 16 |  | 17 | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | Elective | 4 Elective | 4 Co-op | 0 |
|  |  | INTL elective | 4 INTL elective | 4 |  |
|  |  | HSVC organization course | 4 |  |  |
|  |  | HSVC elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ENGW 3315 | 4 Elective | 4 Co-op | 0 |
|  | Elective | 4 INTL elective | 4 |  |
|  | INTL elective | 4 |  |  |
|  | HUSV 4994 | 6 |  | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 Elective | 4 |
|  | INTL elective | 4 |
|  | HUSV 4700 | 4 |
|  | INTL 4700 | 4 |
|  | 0 | 16 |

Total Hours: 132

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 1 <br> Foreign <br> language <br> course | 4 |  |  |
| INTL 1000 | 4 HUSV 2300 | 4 |  |  |
| INTL 1101 | 4 ECON 1290 | 4 |  | 0 |
| HUSV 1101 | 4 | 16 | 0 | 0 |


| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign language course | 4 |  | INTL elective | 4 |
| HSVC elective | 4 |  |  |  |
| HUSV 3900 | 4 |  |  |  |
| EXED 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| INTL elective | 4 |  | INTL elective | 4 |
| HUSV 3700 | 4 |  |  |  |
| HSVC <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Elective | 4 |  |  |  |
| INTL elective | 4 |  |  |  |
| HUSV 4994 | 6 |  |  | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| HSVC <br> organization <br> course | 4 INTL elective | 4 |
| HSVC policy <br> course | 4 Elective | 4 |
| Elective | 4 HUSV 4700 | 4 |
| INTL elective | 4 INTL 4700 | 4 |
|  | 16 | 16 |

Total Hours: 132

## International Affairs and Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

International Affairs Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1160 | International Relations | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or HIST 2211 | The World Since 1945 |  |


| Global Dynamics |  |  |
| :---: | :---: | :---: |
| Complete two of the f | following: ${ }^{1}$ | 6-8 |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |
| MSCR 2325 | Global Media |  |
| COMM 5240 | Global and Intercultural Media |  |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  |
| CRIM 4630 | Political Crime and Terrorism |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 1291 | Development Economics |  |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 4635 | International Economics |  |
| ENGL 2450 | Postcolonial Literature |  |
| ENTR 2206 | Global Social Enterprise |  |
| ENTR 3306 | Global Entrepreneurship |  |
| ENVR 1110 | Global Climate Change |  |
| ENVR 4515 | Sustainable Development |  |
| HIST 1110 | Introduction to World History |  |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |  |
| HIST 2211 | The World Since 1945 |  |
| HIST 2214 | War in the Modern World |  |
| HIST 2311 | Colonialism/Imperialism |  |
| HIST 2312 | Global Migration |  |
| HIST 2315 | Approaches to World History |  |
| HIST 2317 | Comparative Urban Histories |  |
| HIST 2398 | Radicals, Terrorists, and Insurgents |  |


| HIST 3412 | Global Environmental History |
| :---: | :---: |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global Social Responsibility <br> International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two approved short-term programs abroad.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. Global Markets and Local Culture (ANTH 2305) and International Relations (POLS 1160) may not be used as global dynamics courses. See department for additional courses.

## Regional Analysis Requirement

Complete two regional analysis courses, both of which must be in one region, from the following lists. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
|  | Anthropology of Africa | 4 |
| or INTL 4510 | Anthropology of Africa |  |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 | Ethnography of Southeast Asia | 4 |
| or INTL 4350 | Ethnography of Southeast Asia |  |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |


| POLS 3485 | China: Governance and Foreign Policy | 4 |
| :---: | :---: | :---: |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 <br> or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |


| LITR 4655 | Latin American Literature | 4 |
| :---: | :---: | :---: |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \quad \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Anthropology Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Cultural Anthropology |  |  |
| A grade of C or higher is required: | 4 |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |
| ANTH 3410 | Ethnographic Field Experience |  |

Anthropology Electives

Complete three courses from the following range, one of which must be numbered 4000 or above. One study-abroad course may also count toward this requirement with prior permission from the department:

ANTH 2300 to ANTH 4999

## Advanced Area Courses

Complete two of the following. A grade of C or higher is
required:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Global Markets |  |  |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Capstone |  | 4 |
| ANTH 4600 | Senior Seminar | 4 |
| or INTL 4700 | Senior Capstone Seminar in International Affairs |  |

Students taking Senior Seminar (ANTH 4600) must complete either a one-semester senior project, which they would do in the context of ANTH 4600, or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## International Affairs and Anthropology Combined-Major Credit Requirement <br> Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

## International Affairs and Economics, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Requirements

Code Title
Hours

## International Affairs/Economics at Northeastern

| INTL 1000 or ECON 1000 | International Affairs at Northeastern Economics at Northeastern | 1 | HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| :---: | :---: | :---: | :---: | :---: |
| Required Courses |  |  | HIST 2211 | The World Since 1945 |
| INTL 1101 | Globalization and International Affairs | 4 | HIST 2214 | War in the Modern World |
| INTL 3400 | International Conflict and Negotiation | 4 | HIST 2311 | Colonialism/Imperialism |
| POLS 1160 | International Relations | 4 | HIST 2312 | Global Migration |
| ANTH 1101 or HIST 2211 | Peoples and Cultures | 4 | HIST 2315 | Approaches to World History |
|  | The World Since 1945 |  | HIST 2317 | Comparative Urban Histories |
| Global Dynamics |  |  | HIST 2398 | Radicals, Terrorists, and Insurgents |
| Complete three of the following courses with one course numbered 2000 or above: ${ }^{1}$ |  | 10-12 | HIST 3412 | Global Environmental History |
|  |  | HIST 3452 | Global Chinese Migration |
| INTL 1185 or AFRS 1185 |  |  | HUSV 4920 | International Human Services |
|  | Gender in the African Diaspora |  | INTB 1203 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTL 2240 | Global Population and Development |  | or INTB 1209 |  |
| INTL 2300 | Religion in International Affairs |  |  |  |
| INTL 2400 | Politics of Islam and Gender |  |  |  |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |  | INTB 3310 | Cultural Aspects of International Business |
| INTL 3200 | Cities in a Global Context |  | JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| INTL 3460 | Transnational Activism in Global Civil Society |  | or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| INTL 4945 |  |  |  | JRNL 5360 | Global Reporting |
|  | Dialogue of Civilizations: Global Issues in Comparative Perspective |  | LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  | MUSC 1127 | Introduction to World Music |
| AFAM 2301 | Foundations of Black Culture 2 |  | MUSC 1140 | Global Pop Music |
| AFAM 2345 | The Black Experience in the Caribbean |  | PHIL 1155 | Introduction to Human Rights |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  | PHIL 2302 | Philosophical Problems of War and Peace |
| AFAM 2639 | Globalism, Racism, and Human Rights |  | PHIL 5001 | Global Justice |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  | PHIL 5003 | Ethics, Justice, and Global Climate Change |
|  |  |  | PHTH 5230 | Global Health |
| ANTH 1101 | Peoples and Cultures |  | POLS 1155 | Comparative Politics |
| ANTH 2305 | Global Markets and Local Culture |  | POLS 1160 | International Relations |
| ANTH 2315 | Religion and Modernity |  | POLS 2370 | Religion and Politics |
| ANTH 2350 | Urban Anthropology |  | POLS 3405 | International Political Economy |
| ANTH 3415 | Anthropology of Travel and Tourism |  | POLS 3406 | International Law |
| COMM 2303 | Global and Intercultural Communication |  | POLS 3407 | International Organizations |
| MSCR 2325 | Global Media |  | POLS 3408 | International Security |
| COMM 5240 | Global and Intercultural Media |  | POLS 3410 | Nontraditional Security Issues |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |  | POLS 3415 | Ethnic Political Violence |
|  |  |  | POLS 3420 | U.S. National Security Policy |
| CRIM 4630 | Political Crime and Terrorism |  | POLS 3430 | Revolution, Civil War, and Insurrection |
| ECON 1290 | History of the Global Economy |  | POLS 3487 | Politics of Developing Nations |
| ECON 1291 | Development Economics |  | POLS 3490 | Democracy in Comparative Politics |
| ECON 3404 | International Food Economics and Policy |  | POLS 4910 | Model United Nations |
|  |  |  | POLS 4918 | Model NATO |
| ECON 4635 | International Economics |  | POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| ENGL 2450 | Postcolonial Literature |  |  |  |
| ENTR 2206 | Global Social Enterprise |  | PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| ENTR 3306 | Global Entrepreneurship |  |  |  |
| ENVR 1110 | Global Climate Change |  | PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| ENVR 4515 | Sustainable Development |  | PHIL 1272 | Ethics in the World's Religions |
| HIST 1110 | Introduction to World History |  | SOCL 1246 | Environment and Society |


| SOCL 1283 | Globalization and Social Change |
| :--- | :--- |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 3471 | Social Conflict and Community <br> Services Abroad |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |

${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. International Relations (POLS 1160) may not be used as a global dynamics course.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
|  | Anthropology of Africa | 4 |
| or INTL 4510 | Anthropology of Africa |  |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 | Ethnography of Southeast Asia | 4 |
| or INTL 4350 | Ethnography of Southeast Asia |  |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |


| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| :---: | :---: | :---: |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |


| HIST 1260 | Modern Latin America | 4 |
| :---: | :---: | :---: |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Breadth Requirements for Economics

| Code | Title | Hours |
| :--- | :--- | ---: |
| Calculus |  |  |
| MATH 1231 | Calculus for Business and Economics | 4 |
| Computer Science |  |  |

CS 1100 Computer Science and Its Applications 4

## Economics Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Economics Courses |  |  |
| Grades in the following courses must average a minimum of |  |  |
| 2.000 : |  | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3520 | History of Economic Thought |  |

## Economics Electives

Complete three of the following courses with a minimum of one numbered 3000 or above. Courses used to satisfy international affairs requirements may not be used as economics electives:

| Code <br> ECON 1230 | Title |
| :--- | :--- |
| ECON 1290 | History of the Global Economy |
| ECON 1292 | Economic History of the Middle East |
| ECON 1293 | European Economic History |
| ECON 3404 | International Food Economics and <br> Policy |
| ECON 3405 | A Critique of Capitalism |
| ECON 3406 | Critical Perspectives on Economics |
| ECON 3415 | Poverty and Income |
| ECON 3422 | Economics of Transportation |
| ECON 3423 | Environmental Economics |
| ECON 3560 | Applied Econometrics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |
| ECON 4650 | Economic Growth and Applications |

## Integrative Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Development Economics |  |  |
| ECON 1291 | Development Economics | 4 |
| Senior Seminar |  |  |
| Complete one of the following with a thesis or project that integrates both international affairs and economics: |  |  |
| ECON 4692 | Senior Economics Seminar | 4 |
| or INTL 4700 | Senior Capstone Seminar in |  |

## International Affairs and Economics Combined-Major Credit Requirement

Complete 88 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| INTL 1000 | 1 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| INTL 1101 | 4 ECON 1116 | 4 |  |  |
| ECON 1115 | 4 POLS 1160 | 4 |  |  |
| ENGW 1111 | 4 POLS 1161 | 0 |  |  |
| Foreign <br> language <br> core course | 4 HIST 2211 | 4 |  | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ECON 3520 | 4 | ECON 2350 | 4 Vacation | 0 Co-op | 0 |
| CS 1100 | 4 | INTL elective | 4 |  |  |
| INTL elective |  | Foreign language core course | 4 |  |  |
| Foreign language core course | 4 | ECON 2316 | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 INTL 3400 | 4 INTL elective | 4 Co-op | 0 |
|  | ECON 2315 | 4 INTL elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  | 0 |


| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Co-op |  | ECON undergraduate elective | 4 Elective | 4 Co-op | 0 |
|  |  | ECON undergraduat elective | 4 Elective | 4 |  |
|  |  | INTL elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |

## Year 5

| Fall | Hours Spring H | Hours |
| :---: | :---: | :---: |
| Co-op | 0 ECON undergraduate elective | 4 |
|  | INTL 4700 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

[^23]Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 1000 | 1 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| INTL 1101 | 4 ECON 1116 | 4 |  |  |
| ECON 1115 | 4 POLS 1160 | 4 |  |  |
| ENGW 1111 | 4 POLS 1161 | 0 |  |  |
| Foreign <br> language <br> core course | 4 HIST 2211 | 4 |  | 0 |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| ECON 3520 | 4 Co-op | 0 Co-op | 0 INTL elective | 4 |
| CS 1100 | 4 |  | INTL elective | 4 |
| INTL elective | 4 |  |  |  |
| Foreign <br> language <br> core course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 2350 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| INTL elective | 4 |  | Elective | 4 |
| Foreign <br> language <br> core course | 4 |  |  |  |
| ECON 2316 | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 3400 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ECON 2315 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 0 |

Year 5

| Fall H | Hours Spring | Hours |
| :---: | :---: | :---: |
| ECON undergraduate elective | 4 ECON <br> undergraduate elective | 4 |
| ECON undergraduat elective | 4 INTL 4700 | 4 |
| INTL elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| 16 |  | 16 |

Total Hours: 129

## International Affairs and Religious Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38)

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34)

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1160 | International Relations | 4 |
| Complete one of the following: |  | 4 |
| POLS 1155 | Comparative Politics |  |
| ECON 1115 | Principles of Macroeconomics |  |
| HIST 2211 | The World Since 1945 |  |
| INTL 2300 | Religion in International Affairs |  |
| Global Dynamics |  |  |
| Complete two of the following: ${ }^{1}$ |  | 6-8 |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 | Women and World Politics |  |
| or WMNS 2480 | Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |


| MSCR 2325 | Global Media |
| :---: | :---: |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 | International Business and Global Social Responsibility |
| or INTB 1209 | International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |


| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International |
|  | Politics Abroad |


| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| :--- | :--- |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of <br>  |

SOCL 3471 Social Conflict and Community Services Abroad
SOCL $4522 \quad$ Political Ecology and Environmental Justice

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two approved short-term programs abroad.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. International Relations (POLS 1160) may not be used as a global dynamics course. See department for additional courses.

## Regional Analysis Requirement

Complete two of the following courses, both of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:
Code

Africa Title | Hours |
| :---: |
| AFRS 1128 | The African Experience through Music $\quad 4$

| HIST 1180 | African History | 4 |
| :---: | :---: | :---: |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| $\begin{aligned} & \text { ANTH } 4350 \\ & \quad \text { or INTL } 4350 \end{aligned}$ | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |


| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| :---: | :---: | :---: |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |


| Middle East |  |  |
| :--- | :--- | :--- |
| INTL 1160 | Middle East Studies | 4 |

INTL $2100 \quad$ Modern Israel 4

| INTL 2200 | America and the Middle East | 4 |
| :--- | :--- | :--- |
| INTL 2360 | Human Rights in the Middle East | 4 |

INTL $2400 \quad$ Politics of Islam and Gender 4

| INTL 3250 | Democracy and Development in North <br> Africa and the Mediterranean |
| :--- | :--- | :--- |


| CLTR 1502 | Introduction to Arabic Culture | 4 |
| :--- | :--- | :--- |
| ECON 1292 | Economic History of the Middle East | 4 |

HIST 1185 Introduction to Middle Eastern History 4
HIST $1290 \quad 4$

| HIST 4944 | Middle Eastern History and Culture <br> Independent Field Research Abroad |
| :--- | :--- | :--- |


| HIST 4945 | North African History Abroad | 4 |
| :--- | :--- | :--- |
| JWSS 2500 | Zionism and the Challenges of Jewish | 4 |


|  | Statehood | 4 |
| :--- | :--- | ---: |
| POLS 3465 | Government and Politics in the Middle | 4 |
| POLS 3470 | East | 4 |
| POLS 4915 | Arab-Israeli Conflict | 4 |
| PHIL 1270 | Model Arab League | 4 |
|  | Judaism, Christianity, and Islam: |  |
| PHIL 1280 | Abrahamic Religions |  |
|  | Encountering Islam: Traditions, |  |
| PHIL 1285 | Debates, and Crosscultural Diversity | 4 |
| PHIL 1287 | Jewish Religion and Culture | 4 |
| Russia | Modern Judaism | 4 |
| HIST 1285 | Introduction to Russian Civilization | 4 |


| HIST 1286 | History of the Soviet Union | 4 |
| :--- | :--- | :--- |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet | 4 |
|  | Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Religious Studies Requirements

Code Title Hours

Comparative Religion
Complete two of the following: 8

| PHIL 1111 | Introduction to World Religions |
| :--- | :--- |
| PHIL 1130 | Ethics: East and West |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: |
|  | Eastern Religions |
| PHIL 2300 | Mysticism |
| PHIL 4390 | Cults and Sects |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 2315 | Adam and Eve and Their Interpreters |

Ancient Mediterranean and African World Traditions
Complete one of the following: 4
JWSS 1285 Jewish Religion and Culture
PHIL 1111 Introduction to World Religions
PHIL 1120 Understanding the Bible
PHIL 1280 Encountering Islam: Traditions, Debates, and Crosscultural Diversity
PHIL 1285 Jewish Religion and Culture
PHIL 2314 Biblical Prophets and Their Interpreters
PHIL 2316 Interpreting the Bible
PHIL $4390 \quad$ Cults and Sects
PHIL 1271 Sex in Judaism, Christianity, and Islam
PHIL 2315 Adam and Eve and Their Interpreters
PHIL 2311 The Kabbalah: Jewish Mysticism from the Zohar to Madonna

PHIL 1445 Philosophy of Religion
PHIL 2327 Medieval Western Philosophy
Asian Traditions
Complete one of the following:

| PHIL 1111 | Introduction to World Religions |
| :--- | :--- |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 4393 | Asian Religions in the United States |


| PHIL 2398 | Religion and Culture in Indian Cinema |  |
| :---: | :---: | :---: |
| PHIL 4545 | Religion and Politics in South Asia |  |
| PHIL 2395 | Japanese Buddhism |  |
| PHIL 2394 | Chinese Buddhism |  |
| Religion and Culture |  |  |
| Complete one of the following: |  | 4 |
| JWSS 1285 | Jewish Religion and Culture |  |
| PHIL 1220 | The Meaning of Death |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1285 | Jewish Religion and Culture |  |
| PHIL 2316 | Interpreting the Bible |  |
| PHIL 4390 | Cults and Sects |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| WMNS 1103 | Introduction to Women's, Gender, and Sexuality Studies |  |
| Ethics |  |  |
| Complete one of the following: |  | 4 |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| PHIL 5001 | Global Justice |  |

## Religious Studies Electives

Complete three of the following courses, two of which must
be numbered above 2000.

| PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |
| :---: | :---: |
| PHIL 1110 | Introduction to Religion |
| PHIL 1130 | Ethics: East and West |
| PHIL 1120 | Understanding the Bible |
| PHIL 1220 | The Meaning of Death |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1250 | Jesus in the Gospels, American Culture, and the Movies |
| PHIL 1260 | Apocalypticism in Film |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |
| PHIL 1285 | Jewish Religion and Culture |
| PHIL 1286 | American Judaism |
| PHIL 1287 | Modern Judaism |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 1295 | Religious Perspectives on Health and Healing |
| PHIL 1410 | From Vodou and the Rastas to AfroIslam: African Religions in the Americas |
| PHIL 1666 | The Problem of Evil in Film |


| PHIL 2300 | Mysticism |
| :---: | :---: |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2314 | Biblical Prophets and Their Interpreters |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2316 | Interpreting the Bible |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 3410 | Religion and Spirituality in the African Diaspora |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4992 | Directed Study |
| PHIL 5011 | Comparative Religious Ethics |

## International Affairs/Religious Studies Combined-Major Credit Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Capstone |  | 4 |
| INTL 4700 | Senior Capstone Seminar in <br> International Affairs |  |

## International Affairs/Religious Studies Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

 Four years, no co-opYear 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 1000 | 1 Elective | 4 Vacation | 0 Vacation | 0 |
| INTL 1101 | 4 Foreign <br> language <br> course | 4 |  |  |
| ENGW 1111 | 4 ECON 1115 | 4 |  |  |



| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1160 |  | INAF global dynamics course | 4 Vacation | 0 Vacation | 0 |
| Elective | 4 | Elective | 4 |  |  |
| Foreign language course | 4 | Foreign language course | 4 |  |  |
| 12 |  |  | 12 | 0 | 0 |

Year 3
Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours

| INAF global <br> dynamics <br> course | 4 ENGW 3315 | 4 Vacation | 0 Vacation | 0 |
| :--- | :--- | :--- | :--- | :--- |
| INAF <br> regional <br> analysis <br> course | 4 <br> regional <br> analysis <br> course | 4 Elective | 4 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTL 3400 | 4 INTL 4700 | 4 |
| Religious <br> studies <br> elective | 4 Upper <br> division <br> elective | 4 |
| Elective | 4 Religious |  |
| studies |  |  |
| elective |  |  |$\quad 4$| 12 |
| :--- |

Total Hours: 101

Languages, Literatures, and Cultures and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Modern Language Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Language Requirements |  |  |
| Complete three courses in the language of your major: |  |  |
| French | 12 |  |
| FRNH 2101 | Intermediate French 1 |  |
| FRNH 2102 | Intermediate French 2 |  |
| FRNH 3101 | Advanced French 1 |  |
| Spanish |  |  |
| SPNS 2101 | Intermediate Spanish 1 |  |
| SPNS 2102 | Intermediate Spanish 2 |  |
| SPNS 3101 | Advanced Spanish 1 |  |
| Culture | Introduction to Languages, Literature, | 4 |
| CLTR 1120 | and Culture |  |

## Literature

Complete one of the following courses in the language of your 4
major:

| LITR 4550 | From Knights to Revolution |
| :---: | :--- |
| or LITR 4551 | Modern French and Francophone Literature |
| LITR 4560 | Masterpieces of Spanish Literature: |
|  | Eighteenth-Twentieth Century |
| LITR 4561 | Masterpieces of Spanish Literature: <br>  |

## Advanced Language

Complete two of the following courses in the appropriate 8
language while on study abroad:

| FRNH 2101 to | FRNH 5999 |
| :--- | :--- |
| LITR 4550 | From Knights to Revolution |
| LITR 4551 | Modern French and Francophone <br> Literature |
| LITR 4555 | French Poetry |
| LITR 4850 | The Splendid Century |
| LITR 4860 | Age of Enlightenment |
| LITR 4870 | Romantic Heritage |
| LANG 4670 | Topics in French |
| SPNS 2101 to SPNS 5999 |  |
| LANG 4970 | Junior/Senior Honors Project 1 |
| LANG 4971 | Junior/Senior Honors Project 2 |
| LITR 4560 | Masterpieces of Spanish Literature: |
| Eighteenth-Twentieth Century 4565 | Spanish Golden Age |
| LITR 4561 | Masterpieces of Spanish Literature: |
| TitR 46elfth-Seventeenth Century |  |


| LITR 4550 | From Knights to Revolution |  | COMM 5240 | Global and Intercultural Media |
| :---: | :---: | :---: | :---: | :---: |
| LITR 4551 | Modern French and Francophone Literature |  | CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| LITR 4555 | French Poetry |  | CRIM 4630 | Political Crime and Terrorism |
| LITR 4850 | The Splendid Century |  | ECON 1290 | History of the Global Economy |
| LITR 4860 | Age of Enlightenment |  | ECON 1291 | Development Economics |
| LITR 4870 | Romantic Heritage |  | ECON 3404 | International Food Economics and |
| SPNS 2990 to SPNS 3990 |  |  |  | Policy |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century |  | ECON 4635 | International Economics |
|  |  |  | ENGL 2450 | Postcolonial Literature |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century |  | ENTR 2206 | Global Social Enterprise |
|  |  |  | ENTR 3306 | Global Entrepreneurship |
| LITR 4565 | Spanish Golden Age |  | ENVR 1110 | Global Climate Change |
| LITR 4655 | Latin American Literature |  | ENVR 4515 | Sustainable Development |
| International Affairs Requirements |  |  | HIST 1110 | Introduction to World History |
| Code Title Hours  <br> Required Courses   |  |  | HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
|  |  |  | HIST 2211 | The World Since 1945 |
| INTL 1101 | Globalization and International Affairs | 4 | HIST 2214 | War in the Modern World |
| INTL 3400 | International Conflict and Negotiation | 4 | HIST 2311 | Colonialism/Imperialism |
| ECON 1115or ECON 1116 | Principles of Macroeconomics <br> Principles of Microeconomics |  | HIST 2312 | Global Migration |
|  |  |  | HIST 2315 | Approaches to World History |
| Global Dynamics |  |  | HIST 2317 | Comparative Urban Histories |
| Complete three of the following. Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. ${ }^{1}$ |  | 10-12 | HIST 2398 | Radicals, Terrorists, and Insurgents |
|  |  | HIST 3412 | Global Environmental History |
| INTL 1185 | Gender in the African Diaspora |  | HIST 3452 | Global Chinese Migration |
| or AFRS 1185 | Gender in the African Diaspora |  |  | HUSV 4920 | International Human Services |
| INTL 2240 | Global Population and Development |  | INTB 1203 | International Business and Global Social Responsibility |
| INTL 2300 | Religion in International Affairs |  | or INTB 1209 |  |
| INTL 2400 | Politics of Islam and Gender |  |  | Responsibility |
| INTL 2480 or WMNS 2480 | Women and World Politics |  | INTB 3310 | Cultural Aspects of International Business |
| INTL 3200 | Cities in a Global Context |  | JRNL 3300 | Covering Conflicts: Peace, War, and the |
| INTL 3460 | Transnational Activism in Global Civil Society |  | or INTL 3300 | Media <br> Covering Conflicts: Peace, War, and the Media |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  | JRNL 5360 | Global Reporting |
|  |  |  | LPSC 2302 | Global Human Rights: A Social and |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |  | Economic Perspective |
|  |  |  | MUSC 1127 | Introduction to World Music |
| AFAM 2301 | Foundations of Black Culture 2 |  | MUSC 1140 | Global Pop Music |
| AFAM 2345 | The Black Experience in the Caribbean |  | PHIL 1155 | Introduction to Human Rights |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  | PHIL 2302 | Philosophical Problems of War and Peace |
| AFAM 2639 | Globalism, Racism, and Human Rights |  | PHIL 5001 | Global Justice |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  | PHIL 5003 | Ethics, Justice, and Global Climate Change |
| ANTH 1101 | Peoples and Cultures |  | PHTH 5230 | Global Health |
| ANTH 2305 | Global Markets and Local Culture |  | POLS 1155 | Comparative Politics |
| ANTH 2315 | Religion and Modernity |  | POLS 1160 | International Relations |
| ANTH 2350 | Urban Anthropology |  | POLS 2370 | Religion and Politics |
| ANTH 3415 | Anthropology of Travel and Tourism |  | POLS 3405 | International Political Economy |
| COMM 2303 | Global and Intercultural Communication |  | POLS 3406 | International Law |
| MSCR 2325 |  |  | POLS 3407 | International Organizations |
|  | Global Media |  | POLS 3408 | International Security |


| POLS 3410 | Nontraditional Security Issues |
| :---: | :---: |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |
| International Conflict and Negotiation (INTL 3400) is not permitted to count in the Global Dynamics area for the Languages, Literatures \& Cultures and International Affairs, BA as it is required in other areas of the major. |  |

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |


| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| :---: | :---: | :---: |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |




| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 ENGW 3315 | 4 Upper division elective | 4 Co-op | 0 |
|  | INTL 3400 | 4 INTL elective | 4 |  |
|  | Elective | 4 |  |  |
|  | French/ Spanish elective 3000-5000 | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 INTL 4700 | 4 |
|  | Upper <br> division <br> elective | 4 |
|  | LITR 3500 | 4 |
|  | French/ <br> Spanish <br> elective <br> $3000-5000$ | 4 |
| 0 | 16 |  |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| INTL 1000 | 1 | MATH 1215 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 | ECON 1115 <br> or 1116 | 4 |  |  |
| INTL 1101 | 4 | Elective | 4 |  |  |
| CLTR 1120 |  | FRNH 2101 or SPNS 2102 | 4 |  |  |
| FRNH 2101 or SPNS 2101 | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| NUpath course or elective | 4 | Co-op | 0 Co-op | 0 INTL elective | 4 |
| LITR 4550, 4551, 4560, or 4561 | 4 |  |  | Elective | 4 |


| FRNH 3101 <br> or SPNS | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 3101 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL elective | 4 Co-op | 0 Co-op | 0 INTL elective |  |$\quad 4$

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 3400 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| ENGW 3315 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| French/ <br> Spanish <br> elective <br> $3000-5000$ | 4 |  |  | 0 |
|  | 16 | 0 | 0 | 0 |


| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTL elective | 4 INTL elective | 4 |
| Upper <br> division <br> elective | 4 INTL 4700 | 4 |
| Elective | 4 Upper <br> division <br> elective | 4 |
| French/ <br> Spanish <br> elective <br> $3000-5000$$\quad 4$ LITR 3500 | 4 |  |
|  | 16 | 16 |

Total Hours: 129

## Political Science and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Political Science Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

## Political Science Electives/Concentration for BA

Complete four upper-division political science electives, or complete one of the following concentrations. If you are working toward a concentration, declare it with your advisor in order for it to be added to your record. Requirements for the concentrations are listed below (p. 729).

| Code $\quad$ Title | Hours |
| :--- | ---: |
| Political Science Electives |  |
| Complete four Political Science courses at or above POLS | 16 |
| 2300 |  |

- Concentration in Campaigns and Elections
- Concentration in Comparative Politics
- Concentration in Identity, Culture and Politics
- Concentration in International Relations and Diplomacy
- Concentration in Security Studies

International Affairs Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| ECON 1115 or ECON 1116 | Principles of Macroeconomics <br> Principles of Microeconomics | 4 |
| Global Dynamics |  |  |
| Complete two of the numbered 2000 or a | following, one of which must be ove: ${ }^{1}$ | 6-8 |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |


| INTL 2300 | Religion in International Affairs |
| :---: | :---: |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |
| AFAM 2301 | Foundations of Black Culture 2 |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 | International Business and Global Social Responsibility |


| or INTB 1209 | International Business and Global Social Responsibility |
| :---: | :---: |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

${ }^{1}$ Comparative Politics (POLS 1155) and International Relations (POLS 1160) are not permitted to count in the Global Dynamics area for the Political Science and International Affairs, BA as they are required in other areas of the major.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific

Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| $\begin{aligned} & \text { ANTH } 4510 \\ & \text { or INTL } 4510 \end{aligned}$ | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |


| CLTR 1504 | Introduction to Spanish Culture | 4 |
| :---: | :---: | :---: |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |


| CLTR 1502 | Introduction to Arabic Culture | 4 |
| :---: | :---: | :---: |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediate level two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Integrative Requirements

| Code <br> Capstone | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| POLS 4701 | Political Science Senior Capstone |  |
| POLS 4703 | Senior Thesis |  |
| INTL 4700 | Senior Capstone Seminar in <br> International Affairs |  |

## International Experiential Learning

Complete at least one "international semester" (one full semester) via study abroad, international internship, or international co-op, or complete two summer half semesters via study abroad.

## Political Science and International Affairs Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Concentrations

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

Required Courses
With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN COMPARATIVE POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Theoretical Requirement |  |  |
| Complete one of the following: | 4 |  |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |

Regional Requirements
Complete two of the following:
POLS 3435 Politics and Governance of Europe and the European Union

| POLS 3445 | Politics in Central and Eastern Europe |
| :--- | :--- |
| POLS 3450 | Government and Politics in Russia |
| POLS 3460 | Contemporary Government and Politics <br> in Africa |

POLS 3465 Government and Politics in the Middle
East

| POLS 3475 | Government and Politics in Latin <br> America |
| :---: | :--- |
| POLS 3480 | Government and Politics in Japan |
| POLS 3485 | China: Governance and Foreign Policy |
| Experiential/Practicum Requirement |  |
| Complete one of the following: |  |

POLS 4915 Model Arab League
POLS 4917 Model European Union
POLS 4918 Model NATO
POLS 4937 Dialogue of Civilizations: Government
and Politics Abroad
CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Course |  |  |
| POLS 3415 | Ethnic Political Violence | 4 |

or POLS 3418 Nationalism
Electives

| Complete three of the following: |
| :--- |
| POLS 2333 Politics and Film <br> POLS 2336 Politics and the Arts <br> POLS 2360 Politics of Poverty <br> POLS 2368 Music and Politics <br> POLS 2370 Religion and Politics <br> POLS 2375 Gender and Politics <br> POLS 2380 Latino Politics in the United States <br> POLS 3309 Lesbian, Gay, Bisexual, and <br> POLS 3320 Transgender Issues in Public Policy <br> POLS 3324 Law and Society |

$\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title }\end{array}$
Experiential/Practicum Requirement
Complete one of the following:

| POLS 4910 | Model United Nations |
| :---: | :---: |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| Core Courses |  |
| Complete three of the following: |  |


| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

CONCENTRATION IN SECURITY STUDIES
Code Title Hours

Complete four of the following: 16

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ENGW 1111 | 4 | HIST 2211 | 4 | Vacation | 0 Vacation | 0 |
| MATH 1215 | 4 | POLS 1150 | 4 |  |  |  |
| POLS 1155 | 4 | POLS 1151 | 0 |  |  |  |
| POLS 1156 |  | Foreign language course | 4 |  |  |  |
| INTL 1101 | 4 | POLS 1160 | 4 |  |  |  |
| POLS 1000 | 1 | POLS 1161 | 0 |  |  |  |
|  | 17 |  | 16 |  | 0 | 0 |
| Year 2 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| ECON 1290 | 4 | INTL undergraduate elective | 4 | Vacation | 0 Co-op | 0 |
| POLS 2326 | 4 | POLS 2400 | 4 |  |  |  |
| POLS undergraduate elective | 4 | POLS undergraduate elective | - 4 |  |  |  |
| Foreign language course | 4 | Foreign language course | 4 |  |  |  |
|  | 16 |  | 16 |  | 0 | 0 |
| Year 3 |  |  |  |  |  |  |
| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | INTL 3400 |  | INTL undergradu elective | 4 Co-op | 0 |
|  |  | POLS undergraduat elective |  | POLS <br> undergradu <br> elective | 4 |  |
|  |  | INTL undergraduate elective | - 4 |  |  |  |
|  |  | ENGW 3315 | 4 |  |  |  |
| 0 |  |  | 16 |  | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 <br>  <br>  <br>  <br>  <br>  <br> INTL <br> undergraduate <br> elective | 4 Elective | 4 Co-op | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 INTL 4700 | 4 |
|  | Elective | 4 |


| Elective | 4 |
| ---: | ---: |
| Elective | 4 |
| 0 | 16 |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 HIST 2211 | 4 Vacation | 0 Vacation | 0 |
| MATH 1215 | F Foreign <br> language <br> course | 4 |  |  |
| POLS 1155 | 4 POLS 1150 | 4 |  |  |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| INTL 1101 | 4 POLS 1160 | 4 | 0 | 0 |
| POLS 1000 | 1 POLS 1161 | 0 | 0 |  |
|  | 17 | 16 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ECON 1290 | 4 Co-op | 0 Co-op | 0 POLS undergraduate elective | 4 |
| POLS 2326 | 4 |  | INTL undergraduat elective | 4 |
| Foreign language course | 4 |  |  |  |
| POLS undergraduat elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: |$\quad$| Hours |
| ---: | :--- |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL 3400 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| POLS <br> undergraduat | 4 |  |  |  |
| elective |  |  |  |  |$\quad$| INTL |
| :--- |$\quad 4 \quad$|  |
| :--- |
| undergraduate <br> elective |


| ENGW 3315 | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 16 | 0 | 0 | 0 |
| Year 5 |  |  |  |  |
| Fall | Hours Spring | Hours |  |  |
| INTL undergraduate elective | 4 INTL 4700 | 4 |  |  |
| POLS undergraduat elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 |  |  |

Total Hours: 129

## International Affairs, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Course

INTL 1101
Globalization and International Affairs

## Regional Analysis Elective Courses

Complete two of the following courses. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor:

| Africa |  |  |
| :--- | :--- | :--- |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in <br> Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics <br> in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and <br> AFRS 3645 | Development in Kenya |


| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| :---: | :---: | :---: |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |


| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| :---: | :---: | :---: |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \quad \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

## Global Dynamics Elective Courses

Complete two of the following:

| INTL 2240 | Global Population and Development |
| :---: | :---: |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |
| AFAM 2301 | Foundations of Black Culture 2 |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 1185 or INTL 1185 | Gender in the African Diaspora Gender in the African Diaspora |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |


| HIST 3412 | Global Environmental History |
| :---: | :---: |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 | International Business and Global Social Responsibility |
| or INTB 1209 | International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 | Covering Conflicts: Peace, War, and the Media |
| or INTL 3300 | Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

## GPA Requirement

2.000 GPA required in the minor.

## Middle East Studies, Minor

The minor in Middle East studies is an interdisciplinary program, drawing on courses in international affairs; political science; history; philosophy and religion; economics; anthropology; and languages, literatures, and cultures. The program provides an in-depth study of the Middle East and North Africa (Arab world, Israel, Iran, and Turkey), its place within the broader Mediterranean region, and its relations with other world regions. As such, it seeks 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 studyabroad programs and the Dialogue of Civilizations programs (faculty-led summer programs) in Egypt, Morocco, Tunisia, Jordan, Turkey, Israel and Palestine, and other approved programs in the region.

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| HIST 1185 | Introduction to Middle Eastern History | 4 |
| :---: | :--- | :---: |
| or HIST 1290 | Modern Middle East |  |
| POLS 3465 | Government and Politics in the Middle | 4 |
| or POLS 3470 | East |  |
| Arab-Israeli Conflict | 4 |  |

## Elective Courses

Complete two of the following courses. 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 |
| :--- | :--- | :--- |
| ARAB 1102 | Elementary Arabic 2 | 4 |
| ARAB 1301 | Elementary Arabic Immersion 1 | 4 |
| ARAB 1302 | Elementary Arabic Immersion 2 | 4 |
| ARAB 2101 | Intermediate Arabic 1 | 4 |
| ARAB 2102 | Intermediate Arabic 2 | 4 |
| ARAB 2301 | Intermediate Arabic Immersion 1 | 4 |
| ARAB 2302 | Intermediate Arabic Immersion 2 | 4 |
| ARAB 3101 | Advanced Arabic 1 | 4 |
| ARAB 3102 | Advanced Arabic 2 | 4 |
| ARAB 3301 | Advanced Arabic Immersion 1 | 4 |
| ARAB 3302 | Advanced Arabic Immersion 2 | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HBRW 1101 | Elementary Hebrew 1 | 4 |
| HBRW 1102 | Elementary Hebrew 2 | 4 |
| HBRW 2101 | Intermediate Hebrew 1 | 4 |
| HBRW 2102 | Intermediate Hebrew 2 | 4 |
| HBRW 3101 | Advanced Hebrew 1 | 4 |
| HBRW 3102 | Advanced Hebrew 2 | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |


| HIST 1290 | Modern Middle East | 4 |
| :---: | :---: | :---: |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |

## GPA Requirement

2.000 GPA required in the minor

## Jewish Studies

Website (http://www.northeastern.edu/jewishstudies)

## Lori H. Lefkovitz, PhD

Ruderman Professor and Director, Jewish Studies Program
409 Nightingale Hall
617.373.8437
617.373 .2509 (fax)

Jennifer I. Sartori, Academic Specialist and Associate Director, j.sartori@northeastern.edu

Jewish studies offers the opportunity to explore Jewish history, religion, and cultures. Because of the geographic, ethnic, racial, and cultural diversity of the Jewish people, as well as the long timeline of Jewish history, Jewish studies provides students with rich possibilities for crosscultural and comparative study. Jewish studies is an interdisciplinary program embracing history, music, literature, political science, international affairs, sociology, gender studies, religion, philosophy, Hebrew, and more. The program also explores the evolving interactions between Judaism and other religions and offers exciting courses in both Israel studies and the history and cultures of Diaspora Jewish communities around the world.

The Jewish studies program offers both a minor and a pre-approved template for a combined major. A unique feature of the minor is the Jewish studies module, in which students create an original project that brings an aspect of Jewish studies together with an aspect of their major.

Jewish studies classes seek to help students develop a more critical and analytical understanding of the religious and secular world around them. They are designed to prepare students for any field that requires critical thinking and cross-cultural understanding, including careers in education, social services, politics, museums and archives, and Jewish
communal organizations, as well as for graduate and professional studies. A partnership between Northeastern University and Hebrew College allows for tuition-free cross-registration.

Study abroad, either through the Dialogues of Civilization program in Israel, Germany, and/or Poland or through traditional study-abroad programs, is a significant aspect of Jewish studies. Experiential learning in the Jewish studies program includes these study-abroad opportunities, as well as internships or co-ops at organizations such as the Jewish Community Relations Council, Facing History and Ourselves, the Jewish Women's Archive, and the Israeli Consulate. The Ruderman merit-based scholarship supports selected Jewish studies majors and minors; the Gideon Klein award supports a student in research on the arts and the Holocaust.

For more information, visit the department website (http:// www.northeastern.edu/jewishstudies).

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Preapproved Template Program in Jewish Studies

Jewish studies offers a preapproved template program that may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/ major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Arts

- Jewish Studies and Religion (p. 734)


## Minor

- Jewish Studies (p. 738)


## Jewish Studies and Religion, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Jewish Studies Requirements <br> Code Title | Hours |  |
| :--- | :--- | ---: |
| Required Course |  | 4 |
| PHIL 1285 | Jewish Religion and Culture |  |
| or JWSS 1285 | Jewish Religion and Culture |  |

Jewish Religion and Thought
Complete one course from list A or list B.
Note: If you complete one course from list B, you will be required to complete one fewer course to satisfy the religious studies electives requirement.
List A

| JWSS 2500 | Zionism and the Challenges of Jewish Statehood |
| :---: | :---: |
| PHIL 1287 | Modern Judaism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 <br> or JWSS 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews <br> Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2322 | Responses to the Holocaust |
| List B |  |
| PHIL 1286 | American Judaism |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 4605 | Advanced Seminar: Spinoza |
| Jewish History |  |
| Complete two of the | following: |

HIST 1282 The Holocaust and Comparative Genocide
HIST 1292 Jerusalem: Space and Image
HIST 1294 Strangers in a Strange Land? European Jewish History 1750-1945
or JWSS 1294 Strangers in a Strange Land? European Jewish History 1750-1945
HIST 2280 Hitler, Germany, and the Holocaust
HIST 2285 America and the Holocaust
or JWSS 2285 America and the Holocaust
HIST 2300 Race, Religion, Ethnicity: The Example of Jewishness
or JWSS 2300 Race, Religion, Ethnicity: The Example of Jewishness

HIST 2431 Immigration and Identity in the American Jewish Experience
or JWSS 2431 Immigration and Identity in the American Jewish Experience

## Jewish Art and Culture <br> Complete one of the following:

4

| CLTR 3450 | Israeli and Palestinian Film |
| :--- | :--- |
| ENGL 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| on JWSL 3678 3678 | Bedrooms and Battlefields: Hebrew <br> Bible and the Origins of Sex, Gender, <br> and Ethnicity <br> Bedrooms and Battlefields: Hebrew Bible and the <br> Origins of Sex, Gender, and Ethnicity |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| JWSS 2259 | Sex and Gender in the Jewish <br> Experience |
| or WMNS 2259 Sex and Gender in the Jewish Experience |  |

Jewish Studies Electives
Complete three of the following:
CLTR 1575 Jewish Film and Fiction
or JWSS 1575 Jewish Film and Fiction
CLTR $3450 \quad$ Israeli and Palestinian Film
ENGL 2610 Contemporary Israeli Literature and Art Abroad
or JWSS 2610 Contemporary Israeli Literature and Art Abroad
ENGL 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity
or JWSS 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity
ENGL $3685 \quad$ From Kafka to Kushner: Modern and Contemporary Jewish Literature
or JWSS 3685 From Kafka to Kushner: Modern and Contemporary Jewish Literature
HIST 1282 The Holocaust and Comparative Genocide
HIST 1292 Jerusalem: Space and Image
HIST 1294 Strangers in a Strange Land? European Jewish History 1750-1945
or JWSS 1294 Strangers in a Strange Land? European Jewish History 1750-1945
HIST $2280 \quad$ Hitler, Germany, and the Holocaust
HIST 2285 America and the Holocaust
or JWSS 2285
HIST 2300
or JWSS 2300 Race, Religion, Ethnicity: The Example of Jewishness
HIST 2431 Immigration and Identity in the American Jewish Experience
or JWSS 2431 Immigration and Identity in the American Jewish Experience
INTL 2100 Modern Israel
JWSS 2269 Jews and American Popular Culture
JWSS $2500 \quad$ Zionism and the Challenges of Jewish Statehood

| JWSS 3447 | Topics in Jewish Studies |
| :---: | :---: |
| JWSS 4992 | Directed Study |
| MUSC 1132 | Music of the Jewish People |
| PHIL 1120 | Understanding the Bible |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1286 | American Judaism |
| PHIL 1287 | Modern Judaism |
| PHIL 2300 | Mysticism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 or JWSS 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews <br> Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4605 | Advanced Seminar: Spinoza |
| POLS 2370 | Religion and Politics |
| POLS 3465 | Government and Politics in the Middle East |
| POLS 3470 | Arab-Israeli Conflict |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1241 | Sociology of Violence |
| SOCL 2270 | Race and Ethnic Relations |
| WMNS 2259 or JWSS 2259 | Sex and Gender in the Jewish Experience <br> Sex and Gender in the Jewish Experience |

Religion Requirements

| Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| PHIL 1120 | Understanding the Bible | 4 |
| Religion | 8 |  |
| Complete two of the following: | 8 |  |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |  |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: <br> Eastern Religions |  |
| PHIL 1280 | Encountering Islam: Traditions, <br> Debates, and Crosscultural Diversity |  |
| PHIL 2325 | Ancient Philosophy and Political <br> Thought |  |

## Comparative Religions

Complete one of the following:

| PHIL 1111 | Introduction to World Religions |
| :--- | :--- |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 2300 | Mysticism |

PHIL 2327 Medieval Western Philosophy
Philosophy or Religion Seminar
Complete one of the following:

| PHIL 4547 | Seminar: Apocalypticism |
| :--- | :--- |
| PHIL 4605 | Advanced Seminar: Spinoza |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| PHIL 4903 | Seminar in Religion |

Religious Studies Electives
Complete four of the following:

| PHIL 1110 | Introduction to Religion |
| :---: | :---: |
| PHIL 1111 | Introduction to World Religions |
| PHIL 1130 | Ethics: East and West |
| PHIL 1120 | Understanding the Bible |
| PHIL 1220 | The Meaning of Death |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |
| PHIL 1285 or JWSS 1285 | Jewish Religion and Culture Jewish Religion and Culture |
| PHIL 1286 | American Judaism |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 1295 | Religious Perspectives on Health and Healing |
| PHIL 2300 | Mysticism |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 2327 | Medieval Western Philosophy |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| AFRS 3410 | Religion and Spirituality in the African Diaspora |
| PHIL 1445 | Philosophy of Religion |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4547 | Seminar: Apocalypticism |


| PHIL 4605 | Advanced Seminar: Spinoza |
| :--- | :--- |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4991 | Research |
| PHIL 4994 | Internship |

## Integrative Requirements

Code Title

Note: This course may also count as a religion seminar or as
a Jewish history course.
Complete one of the following: 4

| HIST 1294 | Strangers in a Strange Land? European <br> Jewish History 1750-1945 |
| :--- | :--- |

or JWSS 1294 Strangers in a Strange Land? European Jewish History 1750-1945
HIST 2431 Immigration and Identity in the American Jewish Experience
or JWSS 2431 Immigration and Identity in the American Jewish Experience
PHIL 4547 Seminar: Apocalypticism
Hebrew Language Introduction
Complete two courses in Hebrew. These courses also count 8
toward the BA language requirement.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 | HIST 1282 | 4 Vacation | 0 Vacation | 0 |
| Elective |  | Foreign language core course | 4 |  |  |
| JWSS 1285 |  |  |  |  |  |
| Foreign language core course | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 2314 | 4 HBRW 1102 | 4 Vacation | 0 Co-op | 0 |
| PHIL 1275 | 4 <br> Religious <br> studies <br> elective | 4 |  |  |
| HBRW 1101 | 4 Foreign <br> language <br> core course | 4 |  |  |
|  |  |  |  |  |


| Religious <br> studies <br> elective | 4 Elective | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 16 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 HIST 1294 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
| Jewish <br> studies <br> elective <br> HIST 2280 | 4 |  |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MUSC 1132 | 4 Elective | 4 Co-op | 0 |
| Jewish <br> studies <br> elective | 4 Elective | 4 |  |  |
| Religious <br> studies <br> elective | 4 |  |  |  |
|  | PHIL 2300 | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | Jewish <br> studies <br> elective | 4 |
|  | PHIL 4390 | 4 |
| Religious <br> studies <br> elective | 4 |  |
| Religion <br> seminar | 4 |  |
| 0 | 16 |  |

Total Hours: 128

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 PHIL 1150 | 4 Vacation | 0 Vacation | 0 |
| Elective | 4 HIST 1282 | 4 |  |  |
| PHIL 1285 or <br> JWSS 1285 | 4 Elective | 4 |  |  |
| Foreign <br> language <br> core course | 4 Religious <br> studies <br> elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| HBRW 1101 | 4 Co-op | 0 Co-op | 0 Foreign <br> language <br> core course | 4 |
|  |  |  | Elective | 4 |
| PHIL 1275 | 4 |  |  |  |
| PHIL 2300 | 4 |  |  |  |



| POLS 3470 | Arab-Israeli Conflict |
| ---: | :--- |
| WMNS 2259 | Sex and Gender in the Jewish |
|  | Experience |
| or JWSS 2259 | Sex and Gender in the Jewish Experience |


| Jewish-Studies-Related Courses |  |
| :--- | :--- |
| HIST 2280 | Hitler, Germany, and the Holocaust |
| JRNL 3300 | Covering Conflicts: Peace, War, and the <br> Media |
| POLS 2370 | Religion and Politics |
| POLS 3465 | Government and Politics in the Middle <br> East |
| PHIL 1120 | Understanding the Bible |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 2300 | Mysticism <br> SOCL 1240 |
| SOCL 2270 | Race and Ethnic Relations |

## GPA Requirement

2.000 GPA required in the minor

## Languages, Literatures, and Cultures

Website (http://www.northeastern.edu/llc)

## José Buscaglia-Salgado, PhD

Chair
201 Renaissance Park
617.373.2234
617.373 .2298 (fax)

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 Arabic, Chinese, French, Italian, Japanese, Portuguese, Russian, 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.

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Programs

Bachelor of Arts (BA)

- Spanish (p. 739)
- Languages, Literatures, and Cultures and International Affairs (p. 740)


## Minors

- Arabic (p. 745)
- Chinese (p. 745)
- Film and International Culture (p. 746)
- French (p. 746)
- Italian (p. 746)
- Japanese (p. 747)
- Portuguese (p. 747)
- Russian (p. 748)
- Spanish (p. 748)


## Spanish, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA Language Requirements (p. 37).

## Spanish Major Requirements

Language Requirements

| SPNS 2102 <br> or SPNS 2302 | Intermediate Spanish 2 <br> Intermediate Spanish Immersion 2 | 4 |
| :---: | :---: | :---: |
| SPNS 3101 or SPNS 3301 | Advanced Spanish 1 <br> Advanced Spanish Immersion 1 | 4 |
| SPNS 3102 or SPNS 3302 | Advanced Spanish 2 <br> Advanced Spanish Immersion 2 | 4 |
| Language and Linguistics |  |  |
| CLTR 1120 | Introduction to Languages, Literature, and Culture | 4 |
| LING 1150 | Introduction to Language and Linguistics | 4 |
| Culture |  |  |
| Complete four of the following: |  | 16 |
| CLTR 1240 | Latin American Film |  |
| CLTR 1504 | Introduction to Spanish Culture |  |
| CLTR 1505 | Introduction to Latin American Culture |  |
| CLTR 3710 | Representing Latin American Cities |  |


| CLTR 3725 | Representing Violence and Human Rights in Latin America |  |
| :---: | :---: | :---: |
| Literature |  |  |
| Complete three | following: | 12 |
| CLTR 3720 | Literature, Arts, and Poverty in Latin America |  |
| CLTR 3715 | New Narratives: Latin America after 1989 |  |
| LITR 3502 | Cervantes and His Times |  |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century |  |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century |  |
| LITR 4655 | Latin American Literature |  |
| Spanish Seminar |  |  |
| LANG 4800 | Special Topics in Language | 4 |
| Study Abroad/Experiential Learning |  |  |
| See department for details. |  |  |
| Capstone |  |  |
| LANG 4700 | Capstone Seminar | 4 |

## Spanish Major Credit Requirement

Complete 53 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | ENGW 1111 | 4 CLTR 1120 | 4 Vacation | 0 Vacation |$\quad 0$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SPNS 3101 | 4 CLTR 1505 | 4 Vacation | 0 Co-op | 0 |
| CLTR 1240 | 4 LITR 3502 | 4 |  |  |
| LING 1150 | 4 NUpath <br> course or <br> elective | 4 |  |  |
| NUpath <br> course or <br> elective | 4 SPNS 3102 | 4 |  |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Study |  |  |  |
| abroad |  |  |  |  |$\quad 16$ ENGW 3315 |  |  |
| :---: | :---: |
|  |  |


|  | NUpath <br> course or <br> elective | 4 |  |
| :--- | :--- | :--- | :--- |
| 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 LITR 4655 | 4 NUpath <br> course or <br> elective | 4 Co-op | 0 |
|  | LITR 4560 |  |  |  |
|  | NUpath <br> course or <br> elective <br> course or <br> elective | 4 | 4 |  |
| NUpath <br> course or <br> elective | 4 | 8 | 0 |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 LANG 4700 | 4 |
|  | LITR 4561 | 4 |
|  | LANG 4800 | $1-4$ |
|  | NUpath <br> course or <br> elective | 4 |
|  | NUpath <br> course or <br> elective | 4 |
| 0 | $17-20$ |  |

Total Hours: 131-134

## Languages, Literatures, and Cultures and International Affairs, <br> BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Modern Language Requirements

| Code $\quad$ Title | Hours |
| :--- | :--- | ---: |
| Language Requirements | 12 |
| Complete three courses in the language of your major: | 12 |


| French |  |  |
| :---: | :---: | :---: |
| FRNH 2101 | Intermediate French 1 |  |
| FRNH 2102 | Intermediate French 2 |  |
| FRNH 3101 | Advanced French 1 |  |
| Spanish |  |  |
| SPNS 2101 | Intermediate Spanish 1 |  |
| SPNS 2102 | Intermediate Spanish 2 |  |
| SPNS 3101 | Advanced Spanish 1 |  |
| Culture |  |  |
| CLTR 1120 | Introduction to Languages, Literature, and Culture | 4 |
| Literature |  |  |
| Complete one of the following courses in the language of your major: |  | 4 |
| LITR 4550 or LITR 4551 | From Knights to Revolution <br> Modern French and Francophone Literature |  |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century |  |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century |  |
| Advanced Language |  |  |
| Complete two of the following courses in the appropriate language while on study abroad: |  | 8 |
| FRNH 2101 to FRNH 5999 |  |  |
| LITR 4550 | From Knights to Revolution |  |
| LITR 4551 | Modern French and Francophone Literature |  |
| LITR 4555 | French Poetry |  |
| LITR 4850 | The Splendid Century |  |
| LITR 4860 | Age of Enlightenment |  |
| LITR 4870 | Romantic Heritage |  |
| LANG 4670 | Topics in French |  |
| SPNS 2101 to SPNS 5999 |  |  |
| LANG 4970 | Junior/Senior Honors Project 1 |  |
| LANG 4971 | Junior/Senior Honors Project 2 |  |
| LITR 4560 | Masterpieces of Spanish Literature: Eighteenth-Twentieth Century |  |
| LITR 4565 | Spanish Golden Age |  |
| LITR 4561 | Masterpieces of Spanish Literature: Twelfth-Seventeenth Century |  |
| LITR 4655 | Latin American Literature |  |
| Language Electives |  |  |
| Complete three of the following courses in the language of your major with course numbers 2990 or above: |  | 12 |
| FRNH 2990 to FRNH 4999 |  |  |
| LANG 3438 | Structure of French |  |
| LANG 4670 | Topics in French |  |
| LITR 4550 | From Knights to Revolution |  |
| LITR 4551 | Modern French and Francophone Literature |  |
| LITR 4555 | French Poetry |  |
| LITR 4850 | The Splendid Century |  |
| LITR 4860 | Age of Enlightenment |  |
| LITR 4870 | Romantic Heritage |  |
| SPNS 2990 to SPNS 3990 |  |  |


| LITR 4560 | Masterpieces of Spanish Literature: |
| :--- | :--- |
|  | Eighteenth-Twentieth Century |
| LITR 4561 | Masterpieces of Spanish Literature: |
|  | Twelfth-Seventeenth Century |
| LITR 4565 | Spanish Golden Age |
| LITR 4655 | Latin American Literature |

## International Affairs Requirements

Code Title Hours

## Required Courses

| INTL 1101 | Globalization and International Affairs | 4 |
| :--- | :--- | ---: |
| INTL 3400 | International Conflict and Negotiation | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |
| or ECON 1116 | Principles of Microeconomics |  |
| Global Dynamics |  |  |
| Complete three of the following. Courses used to fulfill major <br> requirements may not be used to satisfy the global dynamics <br> requirement. | 10-12 |  |


| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |
| :---: | :---: |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil Society |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |
| AFAM 2301 | Foundations of Black Culture 2 |
| AFAM 2345 | The Black Experience in the Caribbean |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |
| ANTH 1101 | Peoples and Cultures |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |


| ENGL 2450 | Postcolonial Literature |
| :---: | :---: |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global Social Responsibility <br> International Business and Global Social Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |


| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| :--- | :--- |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam <br> PHIL 1272 |
| Ethics in the World's Religions |  |

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| $\begin{aligned} & \text { ANTH } 4510 \\ & \text { or INTL } 4510 \end{aligned}$ | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |


| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |
| :---: | :---: | :---: |
| HIST 1189 | Introduction to South Asian History | 4 |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 | Latin American Society and Development | 4 |
| or INTL 4500 | Latin American Society and Development |  |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |


| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| :---: | :---: | :---: |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \quad \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | :--- |
| Capstone |  |  |


| LITR 3500 | International Perspectives | 4 |
| :---: | :---: | :---: |
| INTL 4700 | Senior Capstone Seminar in International Affairs | 4 |
| Experiential Learning Requirement |  |  |
| Code | Title | Hours |
| Study Abroad/Experiential Learning |  |  |
| Complete at least one semester via study abroad. |  |  |
| Languages, Literatures, and Cultures and International Affairs Combined-Major Credit/GPA Requirements |  |  |

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required
Plan of Study
Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| INTL 1000 | 1 MATH 1215 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | $\begin{aligned} & 4 \text { ECON } 1115 \\ & \text { or } 1116 \end{aligned}$ | 4 |  |  |
| INTL 1101 | 4 Elective | 4 |  |  |
| CLTR 1120 | $\begin{aligned} & 4 \text { FRNH } 2101 \\ & \text { or SPNS } \\ & 2102 \end{aligned}$ | 4 |  |  |
| FRNH 2101 <br> or SPNS <br> 2101 | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |


| Year 2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| INTL elective | 4 | INTL elective | 4 Vacation | 0 Co-op | 0 |
| Elective | 4 | Elective | 4 |  |  |
| Elective | 4 French/ <br> Spanish elective 3000-5000 |  | 4 |  |  |
| $\begin{aligned} & \text { FRNH } 3101 \\ & \text { or SPNS } \\ & 3101 \\ & \hline \end{aligned}$ | 4 | LITR 4550, 4551, 4560, or 4561 | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |



| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 | ENGW 3315 | 4 Upper division elective | 4 Co-op | 0 |
|  |  | INTL 3400 | 4 INTL elective | 4 |  |
|  |  | Elective | 4 |  |  |
|  |  | French/ <br> Spanish <br> elective $3000-5000$ | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 INTL 4700 | 4 |
|  | Upper <br> division <br> elective | 4 |
|  | LITR 3500 | 4 |
|  | French/ <br> Spanish <br> elective <br> 3000-5000 | 4 |
| 0 | 16 |  |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| INTL 1000 | 1 MATH 1215 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | $\begin{aligned} & 4 \text { ECON } 1115 \\ & \text { or } 1116 \end{aligned}$ | 4 |  |  |
| INTL 1101 | 4 Elective | 4 |  |  |
| CLTR 1120 | $\begin{aligned} & 4 \text { FRNH } 2101 \\ & \text { or SPNS } \\ & 2102 \end{aligned}$ | 4 |  |  |
| FRNH 2101 or SPNS 2101 | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 | INTL elective |$\quad 4$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| INTL elective | 4 Co-op | 0 Co-op | 0 INTL elective | 4 |


| INTL elective | 4 |  | Upper <br> division <br> elective | 4 |
| :--- | :---: | :---: | :---: | ---: |
| Advanced <br> literature/ <br> cultural <br> course | 4 |  |  |  |
| Advanced <br> literature/ <br> cultural <br> course | 4 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| INTL elective | 4 INTL elective | 4 |
| Upper <br> division <br> elective | 4 INTL 4700 | 4 |
| Elective | 4 Upper <br> division <br> elective | 4 |
| French/ <br> Spanish <br> elective <br> $3000-5000$ 4 LITR 3500 | 4 |  |

Total Hours: 129

## Arabic, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Culture Courses

| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture |  |
| :--- | :--- | :--- |
| CLTR 1502 | Introduction to Arabic Culture | 4 |

## Required Language Courses

Students with prior language skills in Arabic are allowed to waive up to four ARAB language courses.

| ARAB 1101 | Elementary Arabic 1 | 4 |
| :---: | :--- | ---: |
| or ARAB 1301 | Elementary Arabic Immersion 1 |  |
| ARAB 1102 | Elementary Arabic 2 | 4 |
| or ARAB 1302 | Elementary Arabic Immersion 2 | 4 |
| ARAB 2101 | Intermediate Arabic 1 | 4 |
| or ARAB 2301 | Intermediate Arabic Immersion 1 |  |


| ARAB 2102 | Intermediate Arabic 2 | 4 |
| :---: | :--- | :--- |
| or ARAB 2302 | Intermediate Arabic Immersion 2 |  |

## Elective

Complete one of the following: 4

| ARAB 3101 | Advanced Arabic 1 |
| :---: | :--- |
| or ARAB 3301 | Advanced Arabic Immersion 1 |
| ARAB 3102 | Advanced Arabic 2 |
| or ARAB 3302 | Advanced Arabic Immersion 2 |
| ARAB 3800 | Special Topics in Arabic |
| ARAB 4800 | Special Topics in Arabic |
| ARAB 4992 | Directed Study |
| ARAB 4993 | Independent Study |
| CLTR 4944 | Cultural Engagement Abroad |
| HIST 1185 | Introduction to Middle Eastern History |
| HIST 1290 | Modern Middle East |
| INTL 1160 | Middle East Studies |
| LITR 1150 | Muslim Writers and the Qur'an (in |

## GPA Requirement

2.000 GPA required in the minor

## Chinese, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete two of the following:

| ASNS 1150 | East Asian Studies |
| :---: | :--- |
| or HIST 1150 | East Asian Studies |
| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture |
| CLTR 1500 | Modern Chinese History and Culture |
| or HIST 1500 | Modern Chinese History and Culture |
| CLTR 4944 | Cultural Engagement Abroad |

## Required Language Courses

Students with prior language skills in Chinese are allowed to waive up to four CHNS language courses.

| CHNS 1101 <br> or CHNS 1301 | Elementary Chinese 1 <br> CHNS 1102 <br> or CHNS 1302 | Elementary Chinese 2 <br> Elementary Chinese Immersion 2 |
| :--- | :--- | ---: |
| CHNS 2101 <br> or CHNS 2301 | Intermediate Chinese 1 <br> Intermediate Chinese Immersion 1 | 4 |
| CHNS 2102 <br> or CHNS 2302 | Intermediate Chinese 2 <br> Intermediate Chinese Immersion 2 | 4 |
| Elective |  | 4 |
| Complete one of the following: |  |  |
| CHNS 3101 | Advanced Chinese 1 |  |
| or CHNS 3301 | Advanced Chinese Immersion 1 | 4 |
| CHNS 3102 | Advanced Chinese 2 |  |

or CHNS 3302 Advanced Chinese Immersion 2

| CHNS 3800 | Special Topics in Chinese |
| :--- | :--- |
| CHNS 4800 | Special Topics in Chinese |
| CHNS 4992 | Directed Study |
| CHNS 4993 | Independent Study |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| CLTR 4944 | Cultural Engagement Abroad |
| HIST 1256 | Chinese Civilization in Her Eyes |
| or HIST 2308 | Law, Justice, and Society in Modern China |

## GPA Requirement

2.000 GPA required in the minor

## Film and International Cultures, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: At least two of the courses taken for the minor must be at or above the 2000 level.

## Required Culture Courses

| CLTR 1120 | Introd <br> and C |
| :--- | :--- |
| CLTR 2001 | World |
| Film and Culture Study |  |


| Select one of the fo | ing pairings: | 8 |
| :---: | :---: | :---: |
| CLTR 1240 and CLTR 1505 | Latin American Film and Introduction to Latin American Culture |  |
| CLTR 1260 and CLTR 1700 | Japanese Film and Introduction to Japanese Pop Culture |  |
| CLTR 1265 and CLTR 1504 | Spanish Civil War on Film and Introduction to Spanish Culture |  |
| CLTR 1280 and CLTR 1501 | French Film and Culture and Introduction to French Culture |  |
| CLTR 1508 and CLTR 1509 | Cuban History and Culture through Film and An Introduction to Afro-Cuban Culture |  |
| CLTR 2501 and CLTR 1500 | Chinese Film: Gender and Ethnicity and Modern Chinese History and Culture |  |
| CLTR 3450 and CLTR 1502 | Israeli and Palestinian Film and Introduction to Arabic Culture |  |

## Elective

Note: Courses taken for this requirement cannot be double-counted with courses taken to fulfill the film and culture study requirement.
Complete one of the following:

| CLTR 1240 | Latin American Film |
| :--- | :--- |
| CLTR 1260 | Japanese Film |
| CLTR 1265 | Spanish Civil War on Film |
| CLTR 1280 | French Film and Culture |
| CLTR 1508 | Cuban History and Culture through Film |
| CLTR 2504 | Modern German Film and Literature |


| CLTR 2510 | Brazilian Culture through Film |
| :--- | :--- |
| CLTR 2501 | Chinese Film: Gender and Ethnicity |
| CLTR 3930 | Topics in International Cinema |
| CLTR 3450 | Israeli and Palestinian Film |
| CLTR 3500 | French Culture and the Arts |
| CLTR 4508 | Cuban History through Film- <br>  International Study |

## GPA Requirement

2.000 GPA required in the minor

## French, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| FRNH 2102 | Intermediate French 2 | 4 |
| :---: | :--- | :---: |
| or FRNH 2302 | Intermediate French Immersion 2 |  |
| FRNH 3101 | Advanced French 1 | 4 |
| or FRNH 3301 | Advanced French Immersion 1 | 4 |
| CLTR 1501 | Introduction to French Culture | 4 |

## Culture

CLTR 1120

## Advanced Elective

| Complete one of the following: |  |
| :--- | :--- |
| CLTR 3500 | French Culture and the Arts |
| FRNH 3102 | Advanced French 2 |
| FRNH 3302 | Advanced French Immersion 2 |
| LITR 4550 | From Knights to Revolution |
| LITR 4551 | Modern French and Francophone <br> Literature |
| LITR 4555 | French Poetry |
| LITR 4850 | The Splendid Century |
| LITR 4860 | Age of Enlightenment |
| LITR 4870 | Romantic Heritage |
| LANG 4670 | Topics in French |

## GPA Requirement

2.000 GPA required in the minor

## Italian, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Culture Courses

| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture | 4 |
| :--- | :--- | :--- |
| CLTR 1503 | Introduction to Italian Culture | 4 |

## Required Language Courses

Students with prior language skills in Italian are allowed to waive up to four ITLN language courses.

| ITLN 1101 | Elementary Italian 1 | 4 |
| :---: | :--- | ---: |
| or ITLN 1301 | Elementary Italian Immersion 1 |  |
| ITLN 1102 | Elementary Italian 2 | 4 |
| or ITLN 1302 | Elementary Italian Immersion 2 | 4 |
| ITLN 2101 | Intermediate Italian 1 |  |
| or ITLN 2301 | Intermediate Italian Immersion 1 |  |
| ITLN 2102 | Intermediate Italian 2 |  |
| or ITLN 2302 | Intermediate Italian Immersion 2 | 4 |
| Elective |  |  |
| Complete one of the following: |  |  |
| ITLN 3101 | Advanced Italian 1 |  |
| or ITLN 3301 | Advanced Italian Immersion 1 |  |
| ITLN 3102 | Advanced Italian 2 |  |
| or ITLN 3302 | Advanced Italian Immersion 2 |  |
| ITLN 3800 | Special Topics in Italian |  |
| ITLN 4800 | Special Topics in Italian |  |
| ITLN 4992 | Directed Study |  |
| ITLN 4993 | Independent Study |  |
| CLTR 1290 | Realism and Modernism in Italian Film |  |
| LITR 1250 | Dante's Inferno and Medieval Italian <br> Culture |  |
| CLTR 4944 | Cultural Engagement Abroad |  |

## GPA Requirement

2.000 GPA required in the minor

## Japanese, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete two of the following:

| ASNS 1150 | East Asian Studies |
| :--- | :--- |
| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture |
| CLTR 1700 | Introduction to Japanese Pop Culture |
| CLTR 4944 | Cultural Engagement Abroad |

## Required Language Courses

Students with prior language skills in Japanese are allowed to waive up to four JPNS language courses.

| JPNS 1101 | Elementary Japanese 1 | 4 |
| :---: | :--- | :---: |
| or JPNS 1301 | Elementary Japanese Immersion 1 |  |
| JPNS 1102 | Elementary Japanese 2 | 4 |
| or JPNS 1302 | Elementary Japanese Immersion 2 | 4 |
| JPNS 2101 | Intermediate Japanese 1 |  |
| or JPNS 2301 | Intermediate Japanese Immersion 1 | 4 |

or JPNS 2302 Intermediate Japanese Immersion 2
Elective

| Complete one of the following: |  |
| :--- | :--- |
| CLTR 1260 | Japanese Film |
| CLTR 4944 | Cultural Engagement Abroad |
| JPNS 3101 | Advanced Japanese 1 |
| or JPNS 3301 | Advanced Japanese Immersion 1 |
| JPNS 3102 | Advanced Japanese 2 |
| or JPNS 3302 | Advanced Japanese Immersion 2 |
| HIST 1252 | Japanese Literature and Culture |
| HIST 2351 | Modern Japan |
| JPNS 3800 | Special Topics in Japanese |
| JPNS 4800 | Special Topics in Japanese |
| JPNS 4992 | Directed Study |
| JPNS 4993 | Independent Study |

## GPA Requirement

2.000 GPA required in the minor

## Portuguese, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Culture Courses

| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture | 4 |
| :--- | :--- | :--- |
| CLTR 2510 | Brazilian Culture through Film | 4 |

## Language Courses

Students with prior language skills in Portuguese are allowed to waive up to four PORT language courses.

| PORT 1101 | Elementary Portuguese 1 | 4 |
| :---: | :--- | :---: |
| or PORT 1301 | Elementary Portuguese Immersion 1 |  |
| PORT 1102 | Elementary Portuguese 2 |  |
| or PORT 1302 | Elementary Portuguese Immersion 2 | 4 |
| PORT 2101 | Intermediate Portuguese 1 |  |
| or PORT 2301 | Intermediate Portuguese Immersion 1 | 4 |
| PORT 2102 | Intermediate Portuguese 2 | 4 |
| or PORT 2302 | Intermediate Portuguese Immersion 2 | 4 |

## Elective

Complete one of the following:

| CLTR 4944 | Cultural Engagement Abroad |
| :--- | :--- |
| PORT 3101 | Advanced Portuguese 1 |
| PORT 3301 | Advanced Portuguese Immersion 1 |
| PORT 3102 | Advanced Portuguese 2 |
| PORT 3302 | Advanced Portuguese Immersion 2 |
| PORT 3800 | Special Topics in Portuguese |
| PORT 3900 | Specialized Instruction in Portuguese |
| PORT 4800 | Special Topics in Portuguese |
| PORT 4992 | Directed Study |
| PORT 4993 | Independent Study |

## GPA Requirement

2.000 GPA required in the minor

## Russian, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Culture Courses

| CLTR 1120 | Introduction to Languages, Literature, <br> and Culture | 4 |
| :--- | :--- | :--- |
| HIST 1285 | Introduction to Russian Civilization | 4 |

## Required Language Courses

Students with prior language skills in Russian are allowed to waive up to four RSSN language courses.
$\left.\begin{array}{lll}\hline \begin{array}{l}\text { RSSN 1101 } \\ \text { or RSSN 1301 }\end{array} & \begin{array}{l}\text { Elementary Russian 1 } \\ \text { Elementary Russian Immersion 1 }\end{array} & 4 \\ \text { RSSN 1102 } \\ \text { or RSSN 1302 }\end{array} \quad \begin{array}{l}\text { Elementary Russian 2 } \\ \text { Elementary Russian Immersion 2 }\end{array}\right)$

## GPA Requirement

2.000 GPA required in the minor

## Spanish, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| SPNS 2102 <br> or SPNS 2302 | Intermediate Spanish 2 <br> Intermediate Spanish Immersion 2 | 4 |
| :---: | :--- | :---: |
| SPNS 3101 | Advanced Spanish 1 |  |
| or SPNS 3301 | Advanced Spanish Immersion 1 | 4 |
| Complete one of the following: | 4 |  |
| CLTR 1504 | Introduction to Spanish Culture |  |
| CLTR 1505 | Introduction to Latin American Culture |  |

## CLTR 4944 Cultural Engagement Abroad

## Culture

Introduction to Languages, Literature, and Culture

## Masterpieces Series

Complete one of the following:

| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century |
| :---: | :--- |
| or LITR 4560 | Masterpieces of Spanish Literature: Eighteenth- <br> Twentieth Century |
| CLTR 3715 | New Narratives: Latin America after <br>  <br> 1989 |
| CLTR 3720 | Literature, Arts, and Poverty in Latin <br>  America |

## Advanced Elective

Complete one of the following: 4

| CLTR 1240 | Latin American Film |
| :--- | :--- |
| CLTR 1265 | Spanish Civil War on Film |
| CLTR 3710 | Representing Latin American Cities |
| CLTR 3725 | Representing Violence and Human <br> Rights in Latin America |
| CLTR 4944 | Cultural Engagement Abroad |
| LITR 3502 | Cervantes and His Times |
| SPNS 3102 | Advanced Spanish 2 |
| or SPNS 3302 | Advanced Spanish Immersion 2 |
| LITR 4561 | Masterpieces of Spanish Literature: <br> Twelfth-Seventeenth Century |
| or LITR 4560 | Masterpieces of Spanish Literature: Eighteenth- <br> Twentieth Century |
| LITR 4655 | Latin American Literature |
| LITR 4565 | Spanish Golden Age |
| LANG 4800 | Special Topics in Language |

## GPA Requirement

2.000 GPA required in the minor

## Philosophy and Religion

Website (http://www.northeastern.edu/cssh/philosophy)

## Ronald Sandler

## Professor and Chair

371 Holmes Hall
617.373.3636
617.373 .4359 (fax)

Ronald Sandler, Professor and Chair, r.sandler@northeastern.edu Michael Meyer, Teaching Professor and Academic Advisor, m.meyer@northeastern.edu

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Philosophy addresses questions and theories related to morality, society, religion, and the natural and social sciences. Course work in philosophy provides students with an understanding of the methods and traditions of philosophical thought, as well as with opportunities to critically and
collaboratively reflect on the nature of the world and the human situation in it. Through readings, discussion, and writing, students examine questions concerning the validity of 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 significantly strengthens study in other areas.

Religious studies offers students the opportunity to acquire an understanding of religious experience within its social, historical, literary, and political context. Courses in religious studies examine specific religious traditions such as Judaism, Islam, and Hinduism, and using a comparative approach they explore themes across faith traditions. Through the major, students have the opportunity to study a range of religions and a variety of methods of understanding the key dimensions of religious life.

Information on experiential learning opportunities, student life, and department faculty can be found at the department website (http:// www.northeastern.edu/cssh/philosophy).

## Academic Progression Standards

A minimum cumulative grade-point average of 2.000 is required to remain in good standing in the major.

## The Philosophy Major

Philosophy majors enter diverse careers, ranging from college-level teaching to law, medicine, 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.

## 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. They also have an opportunity to 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.

## Combined Majors

The analytical and critical skills gained from the study of philosophy are a valuable complement to any other area of study. So, too, is having an understanding of the history of ideas and of alternative world views and value systems. For this reason, the department offers combined majors with political science, economics, physics, international affairs, environmental studies, and media and screen studies. Details regarding these majors can be found on the programs page.

The combined major in Jewish studies and religion offers students an integrated program of study of two naturally complementary fields. Study of Judaism as a religion 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 combined 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. The combined 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.

## Preapproved Template Programs in Philosophy and in Religious Studies

The Department of Philosophy and Religion offers preapproved template programs in the following areas:

- Philosophy
- Religious studies

Each template program may be paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## Programs

## Bachelor of Arts

- Philosophy (p. 749)
- Religious Studies (p. 755)
- Environmental Studies and Philosophy (p. 759)
- International Affairs and Religious Studies (p. 760)
- Media and Screen Studies and Philosophy (p. 764)
- Jewish Studies and Religion (p. 777)
- Political Science and Philosophy (p. 766)


## Bachelor of Science (BS)

- Philosophy (p. 767)
- Computer Science and Philosophy (p. 757)
- Economics and Philosophy (p. 773)
- Physics and Philosophy (p. 773)
- Political Science and Philosophy (p. 775)
- Politics, Philosophy, and Economics (p. 575)


## Dual Degrees

- Philosophy, BA/JD (p. 780)
- Philosophy, BS/JD (p. 780)


## Minor

- Philosophy (p. 780)
- Religious Studies (p. 780)
- Ethics (p. 781)


## Philosophy, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Concentration

Complete the philosophy generalist requirements, the concentration in law and ethics, or the concentration in religious studies.

- Philosophy Generalist requirements (p. 750)
- Concentration in Law and Ethics (p. 750)
- Concentration in Religious Studies (p. 751)


## Philosophy Major Credit Requirement

Complete 32 semester hours in the major.

## Upper-Division Electives

Complete three general electives at 3000 level or above that do not double-count with the major or NUpath.

## General Electives

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

## Program Requirements

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| PHILOSOPHY GENERALIST <br> Philosophy Required Courses |  |  |
| PHIL 1115 or PHIL 1215 | Introduction to Logic Symbolic Logic | 4 |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| Advanced Philosophy Elective |  |  |
| Complete one of the following: |  | 4 |
| PHIL 3435 | Moral Philosophy |  |
| PHIL 3436 | History of Modern Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |


| PHIL 4535 | Philosophy of Mind |  |
| :---: | :---: | :---: |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| PHIL 4903 | Seminar in Religion |  |
| PHIL 5001 | Global Justice |  |
| Additional Electives |  |  |
| Complete four additional courses in philosophy and religion. |  | 16 |
| CONCENTRATION IN LAW AND ETHICS Philosophy Required Courses |  |  |
| PHIL 1115 or PHIL 1215 | Introduction to Logic Symbolic Logic | 4 |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| PHIL 3435 | Moral Philosophy | 4 |
| or PHIL 3436 | History of Modern Moral Philosophy |  |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4535 | Philosophy of Mind |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 5001 | Global Justice |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4903 | Seminar in Religion |  |
| Ethics-Related Electives |  |  |
| Complete two of the following: |  | 8 |
| PHIL 1102 | Introduction to Contemporary Moral Issues |  |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1145 | Technology and Human Values |  |
| PHIL 1160 | Introduction to Economic Justice |  |
| PHIL 1165 | Moral and Social Problems in Healthcare |  |
| PHIL 1170 | Business Ethics |  |
| PHIL 1180 | Environmental Ethics |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 2301 | Philosophical Problems of Law and Justice |  |
| PHIL 2302 | Philosophical Problems of War and Peace |  |
| PHIL 2303 | Social and Political Philosophy |  |
| PHIL 3465 | Advanced Medical Ethics |  |
| PHIL 3480 | Environmental Philosophy |  |
| PHIL 5001 | Global Justice |  |
| Philosophy Elective |  |  |
| Complete one cour | in philosophy and religion. | 4 |




## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall


| Elective | 4 PHIL undergraduat elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | EESH 2000 | 1 |  |  |
|  | 16 | 17 | 0 | 0 |
| Year 3 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 Elective | 4 Elective | 4 Co-op | 0 |
|  | $\begin{aligned} & \text { PHIL } 1215 \text { or } \\ & 1115 \end{aligned}$ | 4 Elective | 4 |  |
|  | Advanced philosophy elective | 4 |  |  |
|  | ENGW 3315 | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Elective | 4 Elective | 4 Co-op | 0 |
| Philosophy <br> seminar | 4 Upper- <br> division <br> elective | 4 |  |  |
| PHIL <br> undergraduate <br> elective | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 | 8 | 0 |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 Elective | 4 |
|  | PHIL <br> undergraduati <br> elective | 4 |
| Upper- <br> division <br> elective | 4 |  |
|  | Elective | 4 |
| 0 | 16 |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PHIL <br> undergraduat elective | 4 |  |  |
| PHIL 1101 | 4 Foreign language core course | 4 |  |  |
| Foreign language core course | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |



| Foreign <br> language <br> core course | 4 Elective | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 16 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Foreign <br> language <br> core course | 4 Co-op | 0 Co-op | 0 |  |
| Elective | 4 |  | Elective | 4 |
| PHIL 2325 | 4 |  |  | 4 |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  | 0 | 8 |
|  | 17 | 0 |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PHIL 2330 | 4 |  | Elective | 4 |
| Law-related <br> elective | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 |  |  |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHIL 1215 or | 4 |  |  |  |
| 1115 |  |  |  |  |
| PHIL 3435 | 4 |  | 0 | 0 |
| ENGW 3315 | 4 | 0 |  |  |
|  | 16 |  |  |  |



Philosophy with Concentration in Religious Studies, BA FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL

## Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4Religious <br> studies <br> elective | 4 |  |  |
|  |  |  |  |  |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 Elective | 4 |
|  | Religious <br> studies <br> seminar | 4 |
| Upper- <br> division <br> elective | 4 |  |
|  | Elective | 4 |
| 0 | 16 |  |

Total Hours: 129
FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PHIL 2330 | 4 |  | Elective | 4 |
| Religious <br> studies <br> elective | 4 |  |  |  |
| Upper- <br> division <br> elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHIL 1215 or | 4 |  |  |  |
| 1115 |  |  |  |  |
| PHIL 3435 | 4 |  | 0 | 0 |
| ENGW 3315 | 4 | 0 |  |  |
|  | 16 |  |  |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
| Philosophy <br> seminar | 4 Religious <br> studies <br> seminar | 4 |
| Upper- <br> division <br> elective | Upper- <br> division <br> elective | 4 |
| Elective | 4 Elective | 4 |

[^24]
## Religious Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## 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. |  | 20 |
| Comparative Religion |  |  |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| PHIL 2300 | Mysticism |  |
| PHIL 4390 | Cults and Sects |  |
| Ancient Mediterranean and African World Traditions |  |  |
| JWSS 1285 | Jewish Religion and Culture |  |
| PHIL 1445 | Philosophy of Religion |  |
| PHIL 2325 | Ancient Philosophy and Political Thought |  |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2327 | Medieval Western Philosophy |  |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1120 | Understanding the Bible |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |  |
| PHIL 1285 | Jewish Religion and Culture |  |
| PHIL 1287 | Modern Judaism |  |
| PHIL 2315 | Adam and Eve and Their Interpreters |  |
| PHIL 4390 | Cults and Sects |  |
| Asian Traditions |  |  |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1272 | Ethics in the World's Religions |  |


| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| :---: | :---: | :---: |
| PHIL 1276 | Indian Religions |  |
| PHIL 1290 | Chinese Philosophy and Religion |  |
| PHIL 2394 | Chinese Buddhism |  |
| PHIL 2395 | Japanese Buddhism |  |
| PHIL 2398 | Religion and Culture in Indian Cinema |  |
| PHIL 4393 | Asian Religions in the United States |  |
| PHIL 4545 | Religion and Politics in South Asia |  |
| Religion and Culture |  |  |
| JWSS 1285 | Jewish Religion and Culture |  |
| PHIL 1667 | Science Fiction and Film: Moral Dilemmas and Ethical Analysis |  |
| PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1260 | Apocalypticism in Film |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 1285 | Jewish Religion and Culture |  |
| PHIL 1220 | The Meaning of Death |  |
| PHIL 2315 | Adam and Eve and Their Interpreters |  |
| PHIL 2398 | Religion and Culture in Indian Cinema |  |
| Religious Texts |  |  |
| PHIL 1120 | Understanding the Bible |  |
| PHIL 2315 | Adam and Eve and Their Interpreters |  |
| PHIL 2394 | Chinese Buddhism |  |
| PHIL 2395 | Japanese Buddhism |  |
| PHIL 4395 | Ramayana |  |
| Required Course |  |  |
| Complete one | following: | 4 |
| PHIL 4390 | Cults and Sects |  |
| PHIL 4393 | Asian Religions in the United States |  |
| PHIL 4395 | Ramayana |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4906 | Topics in Religious Studies |  |
| PHIL 5011 | Comparative Religious Ethics |  |
| Religious Studies Electives |  |  |
| Complete three must be numb | es in the PHIL subject area, two of which 2000: | 12 |
| PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |  |
| PHIL 1110 | Introduction to Religion |  |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1120 | Understanding the Bible |  |
| PHIL 1220 | The Meaning of Death |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1231 | Image and Icon in South Asia |  |
| PHIL 1250 | Jesus in the Gospels, American Culture, and the Movies |  |
| PHIL 1260 | Apocalypticism in Film |  |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 1272 | Ethics in the World's Religions |  |


| PHIL 1273 | Jainism |
| :---: | :---: |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |
| PHIL 1281 | Islam, Gender, and Fashion |
| PHIL 1285 | Jewish Religion and Culture |
| PHIL 1286 | American Judaism |
| PHIL 1287 | Modern Judaism |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 1295 | Religious Perspectives on Health and Healing |
| PHIL 1410 | From Vodou and the Rastas to AfroIslam: African Religions in the Americas |
| PHIL 1666 | The Problem of Evil in Film |
| PHIL 2300 | Mysticism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2314 | Biblical Prophets and Their Interpreters |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2316 | Interpreting the Bible |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 3410 | Religion and Spirituality in the African Diaspora |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4992 | Directed Study |
| PHIL 5011 | Comparative Religious Ethics |

## Religious Studies Major Credit Requirement

Complete 36 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Spring/Summer 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 PHIL 1275 | 4 Vacation | 0 Vacation | 0 |
| PHIL 1120 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 1276 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 1280 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHIL 1230 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |


| Year 5 |  |  |
| :--- | :---: | ---: |
| Fall | Hours Spring | Hours |
| PHIL 4390 | 4 PHIL 4606 | 4 |
| Religious <br> studies <br> elective | Religious <br> studies <br> elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Computer Science and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Computer Science Overview | 1 |  |
| CS 1200 | Computer Science/Information Science <br> Overview 1 | 1 |
| CS 1210 | Computer Science/Information Science <br> Overview 2: Co-op Preparation | 1 |

Computer Science Fundamental Courses

| CS 1800 | Discrete Structures |  |
| :--- | :--- | ---: |
| and CS 1801 | and Recitation for CS 1800 | 4 |
| CS 2500 Fundamentals of Computer Science 1 <br> and CS 2501 and Lab for CS 2500 <br> CS 2510 Fundamentals of Computer Science 2 <br> and CS 2511 and Lab for CS 2510 | 5 |  |
| CS 2800 | Logic and Computation <br> and CS 2801 | 5 |

Computer Science Required Courses

| CS 3500 | Object-Oriented Design | 4 |
| :--- | :--- | :--- |
| CS 3800 | Theory of Computation | 4 |
| CS 4500 | Software Development | 4 |
| CS 4800 | Algorithms and Data | 4 |

Computer Science Elective Courses
Complete two upper-division computer science courses from 8
the following ranges:
CS 2500 to CS 7999, but not CS 5010
IS 2000 to IS 7999, but not IS 4900
DS 2000 to DS 7999 , but not DS 4900

## Presentation Requirement

THTR $1170 \quad$ The Eloquent Presenter 1

## Philosophy Courses

| Code | Title | Hours |
| :---: | :---: | :---: |
| Philosophy Required Courses |  |  |
| $\begin{aligned} & \text { PHIL } 1115 \\ & \text { or PHIL } 1215 \end{aligned}$ | Introduction to Logic Symbolic Logic | 4 |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 or PHIL 2330 | Ancient Philosophy and Political Thought Modern Philosophy |  |
| PHIL 1145 | Technology and Human Values | 4 |
| PHIL 4515 | Advanced Logic | 4 |
| Philosophy Intermediate/Advanced Electives |  |  |
| Complete one cou | from the following: | 4 |
| PHIL 3435 | Moral Philosophy |  |
| PHIL 3436 | History of Modern Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |

## Philosophy Electives

Complete three additional 4 SH courses from the PHIL list. 12

## Philosophy Capstone

Note: You must choose distinct courses to satisfy Intermediate/Advanced Elective and Capstone.

| Complete one course from the following: |  |
| :--- | :--- |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |

## Integrative Course Requirement (No additional credit required)

| Code | Title | Hours |
| :---: | :--- | :--- |
| CS 3800 | Theory of Computation |  |
| PHIL 4515 | Advanced Logic |  |

## Major GPA Requirement

| Minimum 2.000 GPA required in all CS and IS courses |  |
| :--- | :--- | ---: |
| Computer Science English Requirement  <br> Code Title <br> College Writing  <br> ENGW 1111 First-Year Writing <br> or ENGW 1102 First-Year Writing for Multilingual Writers | 4 |

Advanced Writing in the Disciplines
Complete one course from the following

| ENGW 3302 | Advanced Writing in the Technical <br> Professions |
| :--- | :--- |
| ENGW 3309 | Advanced Writing in the Humanities |
| ENGW 3315 | Interdisciplinary Advanced Writing in <br> the Disciplines |

## Required General Electives

Code Title
Complete eleven general electives.
Hours

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing-Intensive in the Major
- Interpreting Culture
- Understanding Societies and Institutions
- Employing Ethical Reasoning
- Writing in the First Year
- Advanced Writing in the Disciplines
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

Plan of Study
Four Years, 2 Co-ops in Summer 2/Fall
Year 1

| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ |  | $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 | CS 3500 | 4 | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 | $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | 5 | Elective | 4 |  |  |
| CS 1200 |  | PHIL 2325, POLS 2325, or PHIL 2330 | 4 |  |  |  |  |


| ENGW 1111 | 4 Elective | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| PHIL 1115 or <br> 1215 | 4 |  |  |  |
|  | 18 | 18 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| CS 4800 | 4 CS Elective 1 | $\begin{aligned} & 4 \text { ENGW } 3302 \text {, } \\ & 3309 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
| PHIL 1145 | 4 PHIL <br> Elective 2 | 4 Elective | 4 |  |
| PHIL <br> Elective 1 | 4 PHIL <br> Elective 3 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | CS 1210 | 1 |  |  |
|  | 16 | 17 | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | CS 3800 | 4 Elective | 4 Co-op |  |
|  | CS Elective 2 | 4 Elective | 4 |  |
|  | PHIL 4515 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | THTR 1170 | 1 |  | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | :---: |
| Co-op 4500 | 4 Elective (if <br> needed) | 4 |  |
|  | PHIL <br> Intermediate/ <br> Advanced <br> Elective (if <br> needed) | 4 |  |
| PHIL <br> Capstone <br> Elective | 4 |  |  |
| 0 | 16 | 8 |  |

Total Hours: 134

## Program Requirement

133 total semester hours required

## Five Years, Three Co-ops in Summer 2/Fall


$\left.\begin{array}{lcccc}\text { Year 2 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { CS 3500 } & 4 \text { CS Elective 1 } & 4 & \text { Vacation } & \text { Co-op }\end{array}\right]$

| Year 3 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS 3800 | $\begin{aligned} & 4 \text { ENGW } 3302 \text {, } \\ & 3309 \text {, or } \\ & 3315 \end{aligned}$ | 4 Co-op |  |
|  |  | PHIL 4515 | 4 Elective | 4 |  |
|  |  | PHIL <br> Elective 3 | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | THTR 1170 | 1 |  |  |
|  | 0 |  | 17 | 8 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  |  | PHIL <br> Intermediate/ <br> Advanced <br> Elective | 4 Elective | 4 |  |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | CS 4500 | 4 |
|  | PHIL | 4 |
|  | Capstone |  |
|  | Elective | 4 |
|  | Elective | 4 |
| 0 | 16 |  |

[^25]
## Environmental Studies and Philosophy, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Environmental Studies Requirements

Note: Principles of Microeconomics (ECON 1116) is a recommended prerequisite for Environmental Economics (ECON 3423), and American Government (POLS 1150) is a recommended prerequisite for Environmental Politics and Policy (POLS 2395).

| Code | Title | Hours |
| :--- | :--- | ---: |
| Social Science Component |  |  |
| ECON 3423 | Environmental Economics | 4 |
| HIST 2342 | Environmental History of North America | 4 |
| POLS 2395 | Environmental Politics and Policy | 4 |
| SOCL 1246 | Environment and Society | 4 |

Science Component
Global Climate Change
ENVR $1110 \quad$ Global Climate Change 4
Earth and Environmental Sciences
Complete one of the following:

| ENVR 1104 | Natural Disasters and Catastrophes |  |
| :--- | :--- | ---: |
| ENVR 1112 | Environmental Geology |  |
| ENVR 1200 | Dynamic Earth |  |
| Environment |  |  |
| ENVR 1101 | Environmental Science | 4 |
| Quantitative Methods |  |  |
| Complete one of the following: |  |  |


| ENVR 3300 <br> and ENVR 3301 | Geographic Information Systems <br> and Lab for ENVR 3300 |
| :--- | :--- |
| MATH 2280 | Statistics and Software |

Philosophy Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Philosophy Required Courses |  |  |
| PHIL 1115 | Introduction to Logic | 4 |
| or PHIL 1215 | Symbolic Logic | 4 |
| PHIL 1180 | Environmental Ethics | 4 |
| PHIL 2325 | Ancient Philosophy and Political <br>  <br> or POLS 2325 | Thought <br> Ancient Philosophy and Political Thought |


| PHIL 2330 | Modern Philosophy | 4 |
| :---: | :---: | :---: |
| Philosophy of Science/Environment |  |  |
| Complete one of the following: |  | 4 |
| PHIL 1105 | Science and Pseudoscience |  |
| PHIL 1114 | Reason, Risk, and Evidence |  |
| PHIL 3480 | Environmental Philosophy |  |
| Advanced Philosophy Elective |  |  |
| Complete one of the following: |  | 4 |
| PHIL 3435 | Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4535 | Philosophy of Mind |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 5001 | Global Justice |  |
| Additional Electives |  |  |
| Complete two | nal PHIL courses. | 8 |

## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| ENVR 5210 | Environmental Planning | 4 |
| ENVR 5250 | Geology and Land-Use Planning | 4 |

## Environmental Studies and Philosophy Combined-Major Credit Requirement

Complete 72 semester hours in the major.

## Program Requirement

128 total semester hours required
International Affairs and Religious Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

4 International Affairs Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1160 | International Relations | 4 |
| Complete one of the following: |  | 4 |
| POLS 1155 | Comparative Politics |  |
| ECON 1115 | Principles of Macroeconomics |  |
| HIST 2211 | The World Since 1945 |  |
| INTL 2300 | Religion in International Affairs |  |
| Global Dynamics |  |  |
| Complete two | following: ${ }^{1}$ | 6-8 |


| INTL 1185 | Gender in the African Diaspora |
| :--- | :--- |
| or AFRS 1185 | Gender in the African Diaspora |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 | Women and World Politics |
| INTL 3200 | Cities in a Global Context |
| INTL 3460 | Transnational Activism in Global Civil |

INTL 4945 Dialogue of Civilizations: Global Issues in Comparative Perspective
INTL $5200 \quad$ Political Economy: Interdisciplinary Perspectives
AFAM 2301 Foundations of Black Culture 2
AFAM 2345 The Black Experience in the Caribbean
AFAM 2600 Contemporary Issues: Race, Science, and Technology
AFAM 2639 Globalism, Racism, and Human Rights
AFRS 3424 Epidemiology of Pandemic Diseases
and Health Disparities in the African Diaspora
ANTH 1101 Peoples and Cultures
ANTH $2305 \quad$ Global Markets and Local Culture
ANTH 2315 Religion and Modernity
ANTH $2350 \quad$ Urban Anthropology
ANTH 3415 Anthropology of Travel and Tourism
COMM 2303 Global and Intercultural Communication
MSCR 2325 Global Media
COMM $5240 \quad$ Global and Intercultural Media
CLTR 1515 Comparative Analysis of the Lusophone World and Culture
CRIM $4630 \quad$ Political Crime and Terrorism
ECON 1290 History of the Global Economy
ECON 1291 Development Economics
ECON 3404 International Food Economics and Policy
ECON 4635 International Economics
ENGL 2450 Postcolonial Literature
ENTR 2206 Global Social Enterprise
ENTR 3306 Global Entrepreneurship
ENVR 1110 Global Climate Change

| ENVR 4515 | Sustainable Development |
| :---: | :---: |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |


| PHIL 1272 | Ethics in the World's Religions |
| :--- | :--- |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of <br> Human Societies |
| SOCL 3471 | Social Conflict and Community <br> Services Abroad |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two approved short-term programs abroad.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. International Relations (POLS 1160) may not be used as a global dynamics course. See department for additional courses.

## Regional Analysis Requirement

Complete two of the following courses, both of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |
| Asia |  |  |
| ANTH 4350 or INTL 4350 | Ethnography of Southeast Asia Ethnography of Southeast Asia | 4 |
| ASNS 1150 | East Asian Studies | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 |


| HIST 1189 | Introduction to South Asian History |  |
| :---: | :---: | :---: |
| HIST 1252 | Japanese Literature and Culture | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |
| HIST 1254 | Mao's China and After | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 |
| HIST 2351 | Modern Japan | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 |
| HIST 3452 | Global Chinese Migration | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 2394 | Chinese Buddhism | 4 |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| Europe |  |  |
| CLTR 1501 | Introduction to French Culture | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |
| CLTR 1504 | Introduction to Spanish Culture | 4 |
| CLTR 2280 | French Film and World War II: The German Occupation of France | 4 |
| ECON 1293 | European Economic History | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 |
| HIST 1270 | Ancient Greece | 4 |
| HIST 1271 | Ancient Rome | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |
| HIST 2371 | Europe 1870-1921 | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |
| HIST 2376 | The British Empire | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 |
| POLS 3435 | Politics and Governance of Europe and the European Union | 4 |
| POLS 4917 | Model European Union | 4 |
| SOCL 4535 | European Union: Social and Political | 4 |
| Latin America |  |  |
| AFAM 2301 | Foundations of Black Culture 2 | 4 |
| AFAM 2345 | The Black Experience in the Caribbean | 4 |
| AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| ANTH 4500 or INTL 4500 | Latin American Society and Development <br> Latin American Society and Development | 4 |
| CLTR 1505 | Introduction to Latin American Culture | 4 |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |


| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| :---: | :---: | :---: |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| $\begin{aligned} & \text { SOCL } 1215 \\ & \text { or INTL } 1215 \end{aligned}$ | Society and Culture in Russia Society and Culture in Russia | 4 |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the $B A$ degree.

Religious Studies Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Comparative Religion |  |  |
| Complete two of the following: |  | 8 |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| PHIL 2300 | Mysticism |  |
| PHIL 4390 | Cults and Sects |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 2315 | Adam and Eve and Their Interpreters |  |

Ancient Mediterranean and African World Traditions

| Complete one of the following: <br> JWSS 1285 | Jewish Religion and Culture |
| :--- | :--- |
| PHIL 1111 | Introduction to World Religions |

Complete one of the following:

| PHIL 1111 | Introduction to World Religions |
| :--- | :--- |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 2395 | Japanese Buddhism |
| PHIL 2394 | Chinese Buddhism |

## Religion and Culture

Complete one of the following:

| JWSS 1285 | Jewish Religion and Culture |
| :--- | :--- |
| PHIL 1220 | The Meaning of Death |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1285 | Jewish Religion and Culture |

PHIL 2316 Interpreting the Bible
PHIL $4390 \quad$ Cults and Sects
PHIL 1271 Sex in Judaism, Christianity, and Islam
WMNS 1103 Introduction to Women's, Gender, and Sexuality Studies
Ethics

| Complete one of the following: |  |
| :--- | :--- |
| PHIL 1130 Ethics: East and West <br> PHIL 1272 Ethics in the World's Religions |  |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 5001 | Global Justice |

Religious Studies Electives
Complete three of the following courses, two of which must
be numbered above 2000.

| PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |
| :---: | :---: |
| PHIL 1110 | Introduction to Religion |
| PHIL 1130 | Ethics: East and West |
| PHIL 1120 | Understanding the Bible |
| PHIL 1220 | The Meaning of Death |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1250 | Jesus in the Gospels, American Culture, and the Movies |
| PHIL 1260 | Apocalypticism in Film |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |
| PHIL 1276 | Indian Religions |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |
| PHIL 1285 | Jewish Religion and Culture |
| PHIL 1286 | American Judaism |
| PHIL 1287 | Modern Judaism |
| PHIL 1290 | Chinese Philosophy and Religion |
| PHIL 1295 | Religious Perspectives on Health and Healing |
| PHIL 1410 | From Vodou and the Rastas to AfroIslam: African Religions in the Americas |
| PHIL 1666 | The Problem of Evil in Film |
| PHIL 2300 | Mysticism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2314 | Biblical Prophets and Their Interpreters |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2316 | Interpreting the Bible |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 2394 | Chinese Buddhism |


| PHIL 2395 | Japanese Buddhism |
| :---: | :---: |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 3410 | Religion and Spirituality in the African Diaspora |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4992 | Directed Study |
| PHIL 5011 | Comparative Religious Ethics |


| Foreign language core course |  | Elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHIL 1272 | 4 | Foreign language core course | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| INAF global dynamics course | 4 | ENGW 3315 | 4 Vacation | 0 Vacation | 0 |
| INAF regional analysis course | 4 | INAF regional analysis course | 4 |  |  |
| Religious studies elective | 4 | PHIL 4545 | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |


| Code | Title | Hours |
| :---: | :---: | :---: |
| Capstone |  |  |
| INTL 4700 | Senior Capstone Seminar in International Affairs | 4 |

## International Affairs/Religious Studies Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study <br> Four years, No co-op



## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1160 | 4 <br> INAF global <br> dynamics <br> course | 4 Vacation | 0 Vacation | 0 |


| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTL 3400 | 4 INTL 4700 | 4 |
| PHIL 4390 | 4 Upper <br> division <br> elective | 4 |
| Religious <br> studies <br> elective | 4 PHIL 4606 | 4 |
| Elective | 4 Religious <br> studies <br> elective | 4 |
| 16 | 16 |  |

Total Hours: 129

## Media and Screen Studies and Philosophy, BA

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Media and Screen Studies Requirements

| Code Title | Hours |
| :--- | :--- | :--- |
| Introduction to College |  |


| MSCR 1000 | Media and Screen Studies at Northeastern | 1 |
| :---: | :---: | :---: |
| Introduction to Media Studies |  |  |
| MSCR 1220 | Media, Culture, and Society | 4 |
| Introduction to Screen Theory |  |  |
| MSCR 2220 | Understanding Media and Film | 4 |
| Advanced Theory |  |  |
| MSCR 4623 | Theories of Media and Culture | 4 |
| Media and Screen Electives |  |  |
| Complete four | following: | 16 |
| MSCR 1230 | Introduction to Film Production |  |
| MSCR 1310 | Introduction to Digital Media Culture |  |
| MSCR 2302 | Advertising and Promotional Culture |  |
| MSCR 2305 | Digital Media Culture |  |
| MSCR 2325 | Global Media |  |
| MSCR 2500 | Digital Media Research |  |
| MSCR 2895 | Film Analysis |  |
| MSCR 3210 | Special Topics in Media and Screen Studies |  |
| MSCR 3300 | Media Activism |  |
| MSCR 3402 | Television and Society |  |
| MSCR 3422 | Media Audiences |  |
| MSCR 3423 | Twentieth-Century Media |  |
| MSCR 3426 | Popular Music as Media Form |  |
| MSCR 3428 | Television Studies |  |
| MSCR 3435 | Media Industries |  |
| MSCR 3437 | Media and Identity |  |
| MSCR 3438 | Celebrity Culture |  |
| MSCR 3500 | Documentary Storytelling |  |
| CINE 1200 | Exploring the Humanities through Film |  |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2161 | Video Software Tools |  |
| CINE 2336 | American Film and Culture |  |
| CINE 2350 | History of Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 3446 | Topics in Documentary Production |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Advanced Media and Screen Electives |  |  |
| Complete two of | following: | 8 |
| MSCR 4206 | Age, Media, and Representation |  |
| MSCR 4208 | TV History |  |
| MSCR 4602 | Media and Democracy |  |
| MSCR 4610 | The Networked Self |  |
| MSCR 4622 | Special Topics in Media and Screen Studies |  |
| MSCR 4685 | Interactive Documentary |  |
| MSCR 4970 | Junior/Senior Honors Project 1 |  |
| MSCR 4971 | Junior/Senior Honors Project 2 |  |
| MSCR 4991 | Research |  |
| MSCR 4992 | Directed Study |  |


| MSCR 4993 | Independent Study |
| :--- | :--- |
| MSCR 4996 | Experiential Education Directed Study |
| CINE 3370 | Contemporary Directions in Cinema |
| CINE 3500 | Film Theory |
| CINE 3920 | Topics in Film Studies |
| CINE 4500 | Modernism/Modernity and Film |
| CINE 4550 | Cinema Studies Seminar |
| CINE 4560 | Directing the Short Fiction Film |
| ARTD 4582 | Video in Context: Video and Social <br> Change |

## Philosophy Requirements

Code Title Hours

Philosophy Required Courses
PHIL 1115 Introduction to Logic 4
or PHIL 1215 Symbolic Logic
PHIL 2325 Ancient Philosophy and Political 4
$\begin{array}{lll}\text { or POLS 2325 } & \text { Ancient Philosophy and Political Thought } \\ \text { HIL } 2330 & \text { Modern Philosophy }\end{array}$
Intermediate/Advanced Philosophy Elective
Complete one of the following: 4

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |

Philosophy Topics Electives
Complete one of the following: 4

| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in |
| PHIL 4903 | Religious Studies |
| Philosophy Electives |  |
| Complete four additional electives from the philosophy <br> department. | 16 |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| CINE 3500 | Film Theory | 4 |
| or MSCR 3300 | Media Activism |  |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Major Credit Requirement

Complete 72 semester hours in the major.

## Program Requirement

128 total semester hours required

## Political Science and Philosophy, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

| Political Science Requirements |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| Core Courses in Political Science |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |

Political Thought/Theory
Complete two of the following:

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Upper-Division Electives
Complete two courses in the following range:
POLS 3000 to POLS 5999
Political Science Electives
Complete two courses in the following range:
POLS 2000 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 766).

- Campaigns and Elections
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy


## Philosophy Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Philosophy Required Courses |  |  |
| PHIL 1115 | Introduction to Logic | 4 |
| or PHIL 1215 | Symbolic Logic |  |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| Advanced Philosophy Elective |  |  |
| Complete one of the following: |  | 4 |
| PHIL 3435 | Moral Philosophy |  |
| PHIL 3436 | History of Modern Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |
| Additional Electives |  |  |
| Complete four additional electives in philosophy or religion. |  | 16 |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4535 | Philosophy of Mind |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 4903 | Seminar in Religion |  |
| PHIL 5001 | Global Justice |  |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete the following: |  |  |
| PHIL 4525 | Philosophy of Social Science | 4 |
| or PHIL 5001 | Global Justice |  |

## Program Requirement

128 semester hours required

| Concentrations |  |  |
| :--- | ---: | ---: |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code Title |  |  |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be |  |  |
| substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |
| Campaigns and Elections Electives |  |  |

If POLS 4947 was replaced by a co-op or internship, an
additional elective must be taken.

| Complete two of the following: |  |
| :--- | :--- |
| POLS 2345 | Urban Policies and Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours

| Core Course <br> POLS 3415 <br> or POLS 3418 | Ethnic Political Violence <br> Nationalism | 4 |
| :--- | :--- | ---: |
| Electives |  |  |
| Complete three of the following: |  |  |
| POLS 2333 | Politics and Film | 12 |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and |  |
| POLS 3320 | Transgender Issues in Public Policy |  |
| POLS 3324 | Law and Society |  |


| CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY |  |
| :--- | :--- | :--- |
| Code | Title Hours |

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

CONCENTRATION IN LAW AND LEGAL STUDIES
Code Title Hours
Complete four of the following: 16
POLS 2330 American Political Thought

| POLS 3300 | The U.S. Congress |
| :--- | :--- |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## CONCENTRATION IN PUBLIC POLICY

Code Title Hours

Core Requirement
POLS 3307 Public Policy and Administration 4

Electives
Complete three of the following: 12

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Concentration

Complete the philosophy generalist requirements, the concentration in law and ethics, or the concentration in religious studies.

- Philosophy Generalist (p. 768)
- Concentration in Law and Ethics (p. 768)
- Concentration in Religious Studies (p. 769)


## Philosophy Major Credit Requirement

Complete 32 semester hours in the major.

## Upper-Division Electives

Complete three general electives at 3000 level or above that
do not double-count with the major or NUpath.

## General Electives

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

## University-Wide Requirements

128 total semester hours required
Minimum 2.000 GPA required
Students must earn a minimum of 64 Northeastern University semester hours in order to receive a bachelor's degree.

## Program Requirements

128 total semester hours required

## Concentrations

PHILOSOPHY GENERALIST
Philosophy Required Courses

| PHIL 1115 or PHIL 1215 | Introduction to Logic Symbolic Logic | 4 |
| :---: | :---: | :---: |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| Advanced Philosophy Elective |  |  |
| Complete one of the following: |  | 4 |
| PHIL 3435 | Moral Philosophy |  |
| PHIL 3436 | History of Modern Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |
| Philosophy Seminar |  |  |
| Complete one of th | following: | 4 |


| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in |
| PHIL 4903 | Religious Studies |
| PHIL 5001 | Seminar in Religion |
| Additional Electives |  |
| Complete four additional courses in philosophy and religion. |  |

## CONCENTRATION IN LAW AND ETHICS

Philosophy Required Courses

| PHIL 1115 | Introduction to Logic | 4 |
| :--- | :--- | :--- |
| or PHIL 1215 | Symbolic Logic |  |

PHIL 2325
or POLS 2325
PHIL 2330
PHIL 3435
or PHIL 3436

Ancient Philosophy and Political Thought
Ancient Philosophy and Political Thought Modern Philosophy

History of Modern Moral Philosophy
Philosophy Seminar
Complete one of the following:

| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 5001 | Global Justice |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4903 | Seminar in Religion |
| Ethics-Related Electives |  |
| Complete two of the following: | 8 |


| PHIL 1102 | Introduction to Contemporary Moral <br> Issues |
| :--- | :--- |
| PHIL 1130 | Ethics: East and West |
| PHIL 1145 | Technology and Human Values |
| PHIL 1160 | Introduction to Economic Justice |
| PHIL 1165 | Moral and Social Problems in <br> Healthcare |
| PHIL 1170 | Business Ethics |
| PHIL 1180 | Environmental Ethics |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 2301 | Philosophical Problems of Law and <br> Justice |
| PHIL 2302 | Philosophical Problems of War and <br> Peace |
| PHIL 2303 | Social and Political Philosophy |
| PHIL 3465 | Advanced Medical Ethics |
| PHIL 3480 | Environmental Philosophy |
| PHIL 5001 | Global Justice |

## Philosophy Elective

Complete one course in philosophy and religion. 4
Law-Related Electives
Complete two courses from social science departments. 8
These courses are to be chosen in consultation with the
department:

| AFAM 2337 | African-American History before 1900 |
| :--- | :--- |
| AFAM 2338 | African-American History since 1900 |
| AFAM 2339 | Analysis of American Racism |
| AFAM 2360 | Politics of Poverty |
| AFAM 2639 | Globalism, Racism, and Human Rights |
| AFRS 3460 | Contemporary Government and Politics <br> in Africa |
| CRIM 2100 | Criminal Due Process |
| CRIM 2200 | Criminology |
| CRIM 3100 | Criminal Law |
| CRIM 3200 | Juvenile Justice |


| CRIM 4010 | Gender, Crime, and Justice |  | PHIL 4901 | Topics in Philosophy Seminar |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CRIM 4020 | Race, Crime, and Justice |  | PHIL 4902 | Great Philosophers Seminar |  |
| CRIM 4110 | Legal Philosophy |  | PHIL 5001 | Global Justice |  |
| CRIM 4610 | Youth Gangs |  | PHIL 4547 | Seminar: Apocalypticism |  |
| CRIM 4630 | Political Crime and Terrorism |  | PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| ECON 1270 | Economic Status of Ethnic Minorities |  |  |  |  |
| ECON 3440 | Public Finance |  | PHIL 4903 | Seminar in Religion |  |
| ECON 3442 | Money and Banking |  | Religious Studies Courses |  |  |
| ECON 3461 | Government and Business |  | Complete three of the following: |  | 12 |
| ECON 3520 | History of Economic Thought |  | PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |  |
| ENGL 3325 | Rhetoric of Law |  |  |  |  |
| HIST 1212 | History of Race |  | PHIL 1110 | Introduction to Religion |  |
| HIST 1213 | History of Violence |  | PHIL 1111 | Introduction to World Religions |  |
| HIST 2340 | Cultural History of the U.S. |  | PHIL 1130 | Ethics: East and West |  |
| INTL 1101 | Globalization and International Affairs |  | PHIL 1120 | Understanding the Bible |  |
| INTL 3400 | International Conflict and Negotiation |  | PHIL 1220 | The Meaning of Death |  |
| JRNL 3550 | Law of the Press |  | PHIL 1230 | Sound, Music, and Religion |  |
| LPSC 1101 | Introduction to Law |  | PHIL 1231 | Image and Icon in South Asia |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  | PHIL 1250 | Jesus in the Gospels, American Culture, and the Movies |  |
| POLS 3302 | Judicial Process and Behavior |  | PHIL 1260 | Apocalypticism in Film |  |
| POLS 3324 | Law and Society |  | PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |  |
| POLS 4500 | U.S. Constitutional Law |  |  | Sex in Judaism, Christianity, and Islam |  |
| POLS 4505 | U.S. Civil Liberties |  | PHIL 1271 |  |  |
| SOCL 1232 | American Society |  | PHIL 1272 | Ethics in the World's Religions |  |
| SOCL 1241 | Sociology of Violence |  | PHIL 1273 | Jainism |  |
| SOCL 1245 | Sociology of Poverty |  | PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| SOCL 1246 | Environment and Society |  | PHIL 1276 | Indian Religions |  |
| SOCL 2358 | Current Issues in Cities and Suburbs |  | PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |  |
| SOCL 3401 | Social Policy and Intervention |  |  |  |  |
| SOCL 3402 | Feminist Perspectives on Society |  | PHIL 1281 | Islam, Gender, and Fashion |  |
| SOCL 3406 | Class, Crime, and the Legal System |  | PHIL 1285 | Jewish Religion and Culture |  |
| SOCL 4518 | Law and Social Issues |  | PHIL 1286 | American Judaism |  |
| SOCL 4522 | Political Ecology and Environmental Justice |  | PHIL 1287 | Modern Judaism |  |
|  |  |  | PHIL 1290 | Chinese Philosophy and Religion |  |
| SOCL 4535 URBS 2358 | Current Issues in Cities and Suburbs |  | PHIL 1295 | Religious Perspectives on Health and Healing |  |
| CONCENTRATION IN RELIGIOUS STUDIES <br> Philosophy Required Courses |  |  | PHIL 1410 | From Vodou and the Rastas to AfroIslam: African Religions in the Americas |  |
| PHIL 1115 | Introduction to Logic | 4 | PHIL 1666 | The Problem of Evil in Film |  |
| or PHIL 1215 | Symbolic Logic |  | PHIL 2300 | Mysticism |  |
| PHIL 2325 | Ancient Philosophy and Political Thought |  | PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |  |
| or POLS 2325 | Ancient Philosophy and Political Thought | 4 | PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |  |
| PHIL 2330 | Modern Philosophy | 4 | PHIL 2314 | Biblical Prophets and Their Interpreters |  |
| PHIL 3435 | Moral Philosophy <br> History of Modern Moral Philosophy |  |  | Adam and Eve and Their Interpreters |  |
| or PHIL 3436 |  |  | PHIL 2315 |  |  |
| Philosophy Seminar |  |  | PHIL 2316 | Interpreting the Bible |  |
| Complete one of ther | following: | 4 | PHIL 2322 | Responses to the Holocaust |  |
| PHIL 4500 | Theory of Knowledge |  | PHIL 2394 | Chinese Buddhism |  |
| PHIL 4505 |  |  | PHIL 2395 | Japanese Buddhism |  |
| PHIL 4510 | Metaphysics |  | PHIL 2398 | Religion and Culture in Indian Cinema |  |
| PHIL 4515 | Advanced Logic |  | PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |  |
| PHI |  |  |  |  |  |


| PHIL 3410 | Religion and Spirituality in the African <br> Diaspora |
| :--- | :--- |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew <br> Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4992 | Directed Study |
| PHIL 5011 | Comparative Religious Ethics |
| Philosophy Elective |  |
| Complete one course in philosophy and religion. |  |


|  |  | Upper- <br> division <br> elective | 4 Elective | 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op | 0 | Philosophy seminar | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | Upperdivision elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 |  |  |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| MATH 1215 | 4 PHIL |  |  |  |
| undergraduatı |  |  |  |  |
| ENGW 1111 | 4 |  |  |  |
| PHIL 1101 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |
|  | 16 | 16 |  |  |

$\left.\begin{array}{lcccr}\text { Year 2 } & & & & \\ \text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Elective } & 4 \text { Elective } & 4 & \text { Vacation } & 0 \text { Co-op }\end{array}\right] 0$


## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Advanced | 4 Upper- | 4 Co-op | 0 |
| philosophy |  |  |  |  |
| elective | division <br> elective |  |  |  |

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 PHIL undergraduat elective | 4 |  |  |
| PHIL 1101 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PHIL 2325 | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  | 8 |
|  | 17 | 0 | 0 |  |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | O Upper- <br> division <br> elective | 4 |
| PHIL 2330 | 4 | Elective | 4 |  |
| Elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |
|  | 16 |  |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHIL 1215 or <br> 1115 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| ENGW 3315 | 4 |  |  | 0 |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Advanced <br> philosophy <br> elective | Philosophy <br> seminar | 4 |
| PHIL <br> undergraduatı <br> elective | 4 Elective | 4 |
| Upper- <br> division <br> elective | 4 Upper- <br> division <br> elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Total Hours: 129 |  |  |

Philosophy with Concentration in Law and Ethics, BS
FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| MATH 1215 | 4Moral and <br> political <br> elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| PHIL 1101 | 4 Elective | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| PHIL 2325 | 4 PHIL 2330 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 <br> Law-related <br> elective | 4 |  |  |
|  | EESH 2000 | 1 | 0 | 0 |



Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 PHIL 3435 | 4 Upper- <br> division <br> elective | 4 Co-op | 0 |


|  | Elective | 4 |  |  |
| :--- | :---: | ---: | :--- | ---: |
| Year 5 | 0 | 16 | 8 | 0 |
| Fall | Hours Spring <br> Co-op | Hours <br> seminar | 4 |  |
|  | Elective <br> Upper- <br> division <br> elective | 4 | 4 |  |
| Total Hours: 129 | 0 | 4 | 16 |  |

FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 Moral and <br> political <br> elective | 4 |  |  |
| PHIL 1101 | 4 Elective | 4 |  |  |
| Elective | 4 Law-related |  |  |  |
| elective |  |  |  |  |$\quad 4$|  |  |  |  |
| :--- | :---: | :---: | ---: |
|  | 16 | 16 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PHIL 2325 | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  | 8 |
|  | 17 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Law-related <br> elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHIL 1215 or <br> 115 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| ENGW 3315 | 4 |  |  | 0 |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours | Spring | Hours |
| :---: | :---: | :---: | :---: |
| PHIL 3435 |  | Philosophy seminar | 4 |
| Upperdivision elective | 4 | Elective | 4 |
| Elective |  | Upperdivision elective | 4 |
| Elective | 4 | Elective | 4 |
| 16 |  |  | 16 |

Total Hours: 129
Philosophy with Concentration in Religious Studies, BS
FIVE YEARS, THREE CO-OPS IN SUMMER 2/FALL

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| MATH 1215 | 4Religious <br> studies <br> elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| PHIL 1101 | 4 Elective | 4 | 0 | 0 |
| Elective | 16 | 16 |  |  |
|  |  |  |  |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Elective | 4 Elective | 4 Vacation | 0 Co-op | 0 |
| PHIL 2325 | 4 PHIL 2330 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 |  | 0 |
|  | EESH 2000 | 1 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | $\begin{aligned} & 0 \text { PHIL } 1215 \text { or } \\ & 1115 \end{aligned}$ | 4 Upperdivision elective | 4 Co-op | 0 |
|  | Religious studies elective | 4 Elective | 4 |  |
|  | ENGW 3315 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |


| Year 4 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 0 PHIL 3435 | 4 PHIL <br> undergraduate <br> elective | 4 Co-op | 0 |


| Elective | 4 |  |  |
| ---: | ---: | ---: | ---: |
| 0 | 16 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 Elective | 4 |
|  | Philosophy <br> seminar | 4 |
| Upper- <br> division <br> elective | 4 |  |
| Elective | 4 |  |
| 0 | 16 |  |

Total Hours: 129

FIVE YEARS, THREE CO-OPS IN SPRING/SUMMER 1
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| MATH 1215 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4Religious <br> studies <br> elective | 4 |  |  |
| PHIL 1101 | 4 Elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |
|  | 16 | 16 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Elective | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| PHIL 2325 | 4 |  | Elective | 4 |
| Elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 | 0 | 0 | 8 |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Religious studies elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| PHIL 1215 or 1115 | 4 |  |  |  |
| Elective | 4 |  |  |  |
| ENGW 3315 | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |


| Year 5 | Hours |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hour |
| PHIL 3435 | 4 Philosophy <br> seminar | 4 |
| PHIL <br> undergraduatı <br> elective | 4 PHIL <br> undergraduatı <br> elective | 4 |
| Upper- <br> division <br> elective | 4 Elective | 4 |
| Elective | 4 Upper- <br> division <br> elective | 4 |
| 16 | 16 |  |

Total Hours: 129

## Economics and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Economics Requirements

Code Title Hours Introduction to College

Complete one of the following:

| ECON 1000 | Economics at Northeastern |
| :--- | :--- |
| PHIL 1000 | Philosophy at Northeastern |

Required Economics Courses

| Grades in the following must average a minimum of 2.000: |  |  |
| :--- | :--- | :--- |
| ECON 1115 | Principles of Macroeconomics | 4 |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 2350 | Statistics | 4 |
| ECON 3520 | History of Economic Thought | 4 |
| ECON 3560 | Applied Econometrics | 4 |

Economics Electives
Complete two of the following with at least one numbered 3000 or above:

| ECON 1240 | Economics of Crime |
| :--- | :--- |
| ECON 1281 | Economics of the Creative Industries |
| ECON 1290 | History of the Global Economy |
| ECON 3405 | A Critique of Capitalism |
| ECON 3424 | Law and Economics |

ECON 4681
Information Economics and Game Theory

## Philosophy Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Philosophy Required Courses |  |  |
| PHIL 1115 | Introduction to Logic | 4 |
| or PHIL 1215 | Symbolic Logic | 4 |
| PHIL 2325 | Ancient Philosophy and Political <br> Thought | 4 |

Advanced Philosophy Elective
Complete one of the following: 4

| PHIL 3435 | Moral Philosophy |  |
| :---: | :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |  |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4535 | Philosophy of Mind |  |
| Additional Electives |  | 12 |
| Complete three additional electives in philosophy or religion. |  |  |
| At least one must be numbered 2000 or above. |  |  |

## Integrative Requirement

Code Title Hours

Complete two of the following that have not been used in 8 above requirements:

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 4510 | Philosophy of Science |
| PHIL 4500 | Theory of Knowledge |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate <br> Change |
| PHIL 4992 | Directed Study |

## Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

## Physics and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Breadth Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Mathematics |  |  |
| MATH 1341 | Calculus 1 for Science and Engineering | 4 |
| MATH 1342 | Calculus 2 for Science and Engineering | 4 |
| MATH 2321 | Calculus 3 for Science and Engineering | 4 |
| MATH 2341 | Differential Equations and Linear <br>  Algebra for Engineering | 4 |

## Physics Major Requirements

Code Title Hours
Introductory Physics
Physics 1
Complete one of the following:

| PHYS 1161 | Physics 1 |
| :--- | :--- |
| and PHYS 1162 | and Lab for PHYS 1161 | PHYS $1151 \quad$ Physics for Engineering 1 and PHYS 1152 and Lab for PHYS 1151 and PHYS 1153 and Interactive Learning Seminar for PHYS 1151

Physics 2
Complete one of the following: 5

| PHYS 1165 | Physics 2 |
| :--- | :--- |
| and PHYS 1166 | and Lab for PHYS 1165 |
| PHYS 1155 | Physics for Engineering 2 |
| and PHYS 1156 | and Lab for PHYS 1155 |
| and PHYS 1157 | and Interactive Learning Seminar for <br> PHYS 1155 |

Intermediate Physics

| PHYS 2303 | Modern Physics | 4 |
| :--- | :--- | :---: |
| PHYS 2305 | Thermodynamics and Statistical <br> Mechanics | 4 |
| PHYS 2371 <br> and PHYS 2372 | Electronics <br> and Lab for PHYS 2371 | 4 |
| Advanced Physics |  | 4 |
| PHYS 3600 | Advanced Physics Laboratory | 4 |
| PHYS 3602 | Electricity and Magnetism | 4 |

Physics Elective

| Complete one of the following: |  |
| :--- | :--- |
| MATH 4606 | Mathematical and Computational <br> Methods for Physics |
| PHYS 5111 | Astrophysics and Cosmology <br> Mathematical and Computational Methods for <br> Physics |
| PHYS 5113 | Introduction to Particle and Nuclear <br> Physics |
| PHYS 5114 | Physics of Advanced Materials |
| PHYS 5116 | Complex Networks and Applications |
| PHYS 5260 | Introduction to Nanoscience and <br> Nanotechnology |
| PHYS 4621 | Biological Physics 1 |
| PHYS 4623 | Medical Physics |
| PHYS 4651 | Medical Physics Seminar 1 |
| PHYS 4652 | Medical Physics Seminar 2 |

Philosophy Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Philosophy Required Courses |  |  |
| PHIL 1115 or PHIL 1215 | Introduction to Logic Symbolic Logic | 4 |
| $\text { PHIL } 2325$ | Ancient Philosophy and Political Thought | 4 |
| or POLS 2325 | Ancient Philosophy and Political Thought |  |
| PHIL 2330 | Modern Philosophy | 4 |
| PHIL 4500 | Theory of Knowledge | 4 |
| or PHIL 4505 | Metaphysics |  |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4535 | Philosophy of Mind |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 5001 | Global Justice |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| Additional Electives |  |  |
| Complete four PH | courses. | 16 |
| Physics/Philosophy Integrative Requirements |  |  |
| Code | Title | Hours |
| Integrative Course Requirements |  |  |
| PHIL 4510 | Philosophy of Science | 4 |
| PHYS 3601 | Classical Dynamics | 4 |

## Physics and Philosophy Major Credit Requirement

Complete 98 semester hours in the major.

## Program Requirement

131 total semester hours required

## Plan of Study

## Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHYS 1000 | 1 MATH 1342 | 4 Vacation | 0 Vacation | 0 |
| MATH 1341 | 4 PHYS 1165 | 4 |  |  |
| Elective | 4 PHYS 1166 | 1 |  |  |
| PHYS 1161 | 4 PHYS 1167 | 0 |  |  |
| PHYS 1162 | 1 PHIL 1115 | 4 |  |  |
| PHYS 1163 | 0 ENGW 1111 | 4 |  | 0 |
| PHIL <br> undergraduate <br> elective | 4 |  | 0 | 0 |

Year 2

| Fall | Hours | Spring Hour | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PHIL 2325 | 4 | PHYS 2305 | 4 Vacation | 0 Co-op | 0 |
| MATH 2321 | 4 | MATH 2341 | 4 |  |  |
| PHYS 2303 | 4 | PHIL 2330 | 4 |  |  |
| PHYS 2371 | 3 | Elective | 4 |  |  |
|  | 15 |  | 16 | 0 | 0 |
| Year 3 |  |  |  |  |  |
| Fall | Hours | Spring Hour | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 | PHYS 3601 | 4 Elective | 4 Co-op | 0 |
|  |  | PHYS 3602 | 4 PHYS 3600 | 4 |  |
|  |  | PHIL undergraduate elective | - 4 |  |  |
|  |  | PHIL 4505 | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |



Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 PHIL 4902 | 4 |
|  | Elective | 4 |
|  | PHYS 5115 | 4 |
|  | PHYS <br> undergraduatı <br> elective | 4 |
|  | 0 | 16 |

Total Hours: 130

## Political Science and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Political Science Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Courses in Political Science |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| Political Thought/Theory |  |  |
| Complete two of the following: |  | 8 |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Upper-Division Electives |  |  |
| Complete two courses in the following range: |  | 8 |
| POLS 3000 to POLS 5999 |  |  |
| Political Science Electives |  |  |
| Complete two courses in the following range: |  | 8 |
| POLS 2000 to POLS 5999 |  |  |

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 776).

- Campaigns and Elections
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy


## Philosophy Requirements

Code Title Hours

Philosophy Required Courses

| PHIL 1115 | Introduction to Logic | 4 |
| :---: | :--- | :---: |
| or PHIL 1215 | Symbolic Logic |  |
| PHIL 2325 | Ancient Philosophy and Political <br> or POLS 2325 | Anought |
| PHIL 2330 | Modern Philosophy | 4 |
|  |  | 4 |

Advanced Philosophy Elective
Complete one of the following: 4

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |

Additional Electives
Complete four additional electives in philosophy or religion. 16
Philosophy Seminar

| Complete one of the following: |  |
| :--- | :--- |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |


| PHIL 4515 | Advanced Logic |
| :--- | :--- |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 4903 | Seminar in Religion |
| PHIL 5001 | Global Justice |


| Integrative Requirement |  |
| :--- | :--- |
| Title | Hours |

Complete the following:

| PHIL 4525 | Philosophy of Social Science | 4 |
| :---: | :--- | :---: |
| or PHIL 5001 | Global Justice |  |

## Program Requirement

128 semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |
| Campaigns and Elections Electives |  |  |
| If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken. |  |  |
| Complete two of the following: |  | 8 |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3304 | Presidential Nominating Process |  |

$\underset{\substack{\text { Code } \\ \text { Codentrion } \\ \text { Title }}}{ }$ Hours

| Core Course |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { POLS } 3415 \\ & \text { or POLS } 3418 \end{aligned}$ | Ethnic Political Violence Nationalism | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |  |


| POLS 3320 | Politics and Mass Media |
| :--- | :--- |
| POLS 3324 | Law and Society |

CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY
Code Title Hours

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

CONCENTRATION IN LAW AND LEGAL STUDIES
Code Title Hours

Complete four of the following: 16

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

$\begin{array}{lll}\text { CONCENTRATION IN PUBLIC POLICY } \\ \text { Code } & \text { Title Hours }\end{array}$

| Core Requirement |  |  |
| :--- | :--- | ---: |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |


| POLS 3412 | Homeland Security Policy and Politics |
| :--- | :--- |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Jewish Studies and Religion, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Jewish Studies <br> Requirements <br> Code <br> Required Course | Title | Hours |
| :--- | :--- | ---: |
| PHIL 1285 | Jewish Religion and Culture |  |
| or JWSS 1285 | Jewish Religion and Culture | 4 |

## Jewish Religion and Thought

Complete one course from list A or list B.
Note: If you complete one course from list B, you will be required to complete one fewer course to satisfy the religious studies electives requirement.
List A

| JWSS 2500 | Zionism and the Challenges of Jewish Statehood |
| :---: | :---: |
| PHIL 1287 | Modern Judaism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| or JWSS 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2322 | Responses to the Holocaust |
| List B |  |
| PHIL 1286 | American Judaism |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 4605 | Advanced Seminar: Spinoza |
| Jewish History |  |
| Complete two of the | following: |


| HIST 1282 | The Holocaust and Comparative <br> Genocide |
| :--- | :--- |
| HIST 1292 | Jerusalem: Space and Image |


| HIST 1294 | Strangers in a Strange Land? European <br> Jewish History 1750-1945 |
| :---: | :--- |
| or JWSS 1294 | Strangers in a Strange Land? European Jewish <br> History 1750-1945 |
| HIST 2280 | Hitler, Germany, and the Holocaust |
| HIST 2285 | America and the Holocaust |
| or JWSS 22855 | America and the Holocaust |

## Jewish Art and Culture

Complete one of the following: 4

| CLTR 1575 or JWSS 1575 | Jewish Film and Fiction Jewish Film and Fiction |
| :---: | :---: |
| CLTR 3450 | Israeli and Palestinian Film |
| ENGL 2610 | Contemporary Israeli Literature and Art Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad |
| ENGL 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity |
| ENGL 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary Jewish Literature |
| JWSS 2259 | Sex and Gender in the Jewish Experience |
| or WMNS 2259 | Sex and Gender in the Jewish Experience |
| JWSS 2269 | Jews and American Popular Culture |
| MUSC 1132 | Music of the Jewish People |

## Jewish Studies Electives

Complete three of the following: 12

| CLTR 1575 | Jewish Film and Fiction |
| :--- | :--- |
| or JWSS 1575 | Jewish Film and Fiction |
| CLTR 3450 | Israeli and Palestinian Film |
| ENGL 2610 | Contemporary Israeli Literature and Art <br> Abroad |
| or JWSS 2610 | Contemporary Israeli Literature and Art Abroad <br> ENGL 3678 <br> Bedrooms and Battlefields: Hebrew <br> Bible and the Origins of Sex, Gender, <br> and Ethnicity |
| or JWSS 3678 | Bedrooms and Battlefields: Hebrew Bible and the <br> Origins of Sex, Gender, and Ethnicity |
| ENGL 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| or JWSS 3685 | From Kafka to Kushner: Modern and Contemporary <br> Jewish Literature |
| HIST 1282 | The Holocaust and Comparative <br> Genocide |
| HIST 1292 | Jerusalem: Space and Image |


| HIST 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 |
| :---: | :---: |
| or JWSS 1294 | Strangers in a Strange Land? European Jewish History 1750-1945 |
| HIST 2280 | Hitler, Germany, and the Holocaust |
| HIST 2285 or JWSS 2285 | America and the Holocaust America and the Holocaust |
| HIST 2300 | Race, Religion, Ethnicity: The Example of Jewishness |
| or JWSS 2300 | Race, Religion, Ethnicity: The Example of Jewishness |
| $\text { HIST } 2431$ | Immigration and Identity in the American Jewish Experience |
| or JWSS 2431 | Immigration and Identity in the American Jewish Experience |
| INTL 2100 | Modern Israel |
| JWSS 2269 | Jews and American Popular Culture |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood |
| JWSS 3447 | Topics in Jewish Studies |
| JWSS 4992 | Directed Study |
| MUSC 1132 | Music of the Jewish People |
| PHIL 1120 | Understanding the Bible |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1286 | American Judaism |
| PHIL 1287 | Modern Judaism |
| PHIL 2300 | Mysticism |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |
| $\text { PHIL } 2313$ | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| or JWSS 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4605 | Advanced Seminar: Spinoza |
| POLS 2370 | Religion and Politics |
| POLS 3465 | Government and Politics in the Middle East |
| POLS 3470 | Arab-Israeli Conflict |
| SOCL 1240 | Sociology of Prejudice and Violence |
| SOCL 1241 | Sociology of Violence |
| SOCL 2270 | Race and Ethnic Relations |
| WMNS 2259 | Sex and Gender in the Jewish Experience |
| or JWSS 2259 | Sex and Gender in the Jewish Experience |

## Religion Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Course |  |  |
| PHIL 1120 | Understanding the Bible | 4 |
| Religion |  |  |
| Complete two of the following: |  | 8 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |  |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |  |
| PHIL 2325 | Ancient Philosophy and Political Thought |  |
| Comparative Religions |  |  |
| Complete one of the following: |  | 4 |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 2300 | Mysticism |  |
| PHIL 2327 | Medieval Western Philosophy |  |
| Philosophy or Religion Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4605 | Advanced Seminar: Spinoza |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 5001 | Global Justice |  |
| PHIL 4903 | Seminar in Religion |  |

Religious Studies Electives
Complete four of the following:

| PHIL 1110 | Introduction to Religion |
| :--- | :--- |
| PHIL 1111 | Introduction to World Religions |
| PHIL 1130 | Ethics: East and West |
| PHIL 1120 | Understanding the Bible |
| PHIL 1220 | The Meaning of Death |
| PHIL 1230 | Sound, Music, and Religion |
| PHIL 1231 | Image and Icon in South Asia |
| PHIL 1270 | Judaism, Christianity, and Islam: <br>  <br> Abrahamic Religions |
| PHIL 1272 | Ethics in the World's Religions |
| PHIL 1273 | Jainism |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: <br> PHIL 1276 |
| Eastern Religions |  |
| PHIL 1280 | Encountering Islam: Traditions, |
|  | Debates, and Crosscultural Diversity |
| PHIL 1285 | Jewish Religion and Culture |
| or JWSS 1285 | Jewish Religion and Culture |
| PHIL 1286 | American Judaism |
| PHIL 1290 | Chinese Philosophy and Religion |


| PHIL 1295 | Religious Perspectives on Health and Healing |
| :---: | :---: |
| PHIL 2300 | Mysticism |
| PHIL 2315 | Adam and Eve and Their Interpreters |
| PHIL 2322 | Responses to the Holocaust |
| PHIL 2394 | Chinese Buddhism |
| PHIL 2395 | Japanese Buddhism |
| PHIL 2398 | Religion and Culture in Indian Cinema |
| PHIL 2327 | Medieval Western Philosophy |
| PHIL 3385 | History of Jewish Rationalism |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |
| PHIL 4390 | Cults and Sects |
| PHIL 4393 | Asian Religions in the United States |
| PHIL 4395 | Ramayana |
| AFRS 3410 | Religion and Spirituality in the African Diaspora |
| PHIL 1445 | Philosophy of Religion |
| PHIL 4545 | Religion and Politics in South Asia |
| PHIL 4546 | Advanced Biblical Studies: Hebrew Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4605 | Advanced Seminar: Spinoza |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4991 | Research |
| PHIL 4994 | Internship |

## Integrative Requirements

Code Title Hours

Note: This course may also count as a religion seminar or as a Jewish history course.
Complete one of the following: 4

| HIST 1294 | Strangers in a Strange Land? European <br> Jewish History 1750-1945 |
| :---: | :--- |
| or JWSS 1294 | Strangers in a Strange Land? European Jewish <br> History 1750-1945 |
| HIST 2431 | Immigration and Identity in the <br> American Jewish Experience |
| or JWSS 2431 | Immigration and Identity in the American Jewish <br> Experience |
| PHIL 4547 | Seminar: Apocalypticism |

Hebrew Language Introduction
Complete two courses in Hebrew. These courses also count toward the BA language requirement.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 PHIL 1120 | 4 Vacation | 0 Vacation | 0 |
| PHIL 1285 | 4 HIST 1282 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Foreign <br> language <br> core course | 4 Foreign <br> language <br> core course | 4 |  |  |
|  | 16 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| PHIL 2314 | 4 HBRW 1102 | 4 Vacation | 0 Co-op | 0 |
| PHIL 1275 | 4 PHIL 1280 | 4 |  |  |
| HBRW 1101 | 4 Religious <br> studies <br> elective | 4 |  |  |
| Religious <br> studies <br> elective | 4 Foreign <br> language <br> core course | 4 | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 HIST 1294 | 4 Elective | 4 Co-op | 0 |
|  | ENGW 3315 | 4 Elective | 4 |  |
| Jewish <br> studies <br> elective <br> HIST 2280 | 4 |  |  |  |
|  | 0 | 16 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 MUSC 1132 | 4 Elective | 4 Co-op | 0 |
| Jewish <br> studies <br> elective | 4 Elective | 4 |  |  |
| Religious <br> studies <br> elective | 4 |  |  |  |
| PHIL 2300 | 4 | 8 | 0 |  |
| 0 | 16 |  |  |  |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 PHIL 4390 | 4 |
| Jewish | 4 |  |
| studies |  |  |
| elective |  |  |
| Religious <br> studies <br> elective | 4 |  |
|  | Religion <br> seminar | 4 |
| 0 | 16 |  |

[^26]
## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 | PHIL 1120 | 4 Vacation | 0 Vacation | 0 |
| PHIL 1285 | 4 | HIST 1282 | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| Foreign language core course |  | Religious studies elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |
| Year 2 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| PHIL 2314 | 4 | Co-op | 0 Co-op | 0 Foreign language core course | 4 |
| PHIL 1275 | 4 |  |  | Elective | 4 |
| HBRW 1101 | 4 |  |  |  |  |
| PHIL 2300 | 4 |  |  |  |  |
|  | 16 |  | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| HBRW 1102 | 4 |  | Elective | 4 |
| Religious <br> studies <br> elective | 4 |  |  |  |
| Foreign <br> language <br> core course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Jewish <br> studies <br> elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Jewish <br> studies <br> elective | 4 |  |  |  |
| Religious <br> studies <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 0 |


| Year 5 |  |  |
| :--- | ---: | ---: |
| Fall | Hours Spring | Hours |
| Jewish <br> studies <br> elective | 4 HIST 1294 | 4 |
| Religious <br> studies <br> elective | 4 HIST 2280 | 4 |
| Religious <br> seminar | 4 MUSC 1132 | 4 |


| Elective | 4 PHIL 1280 | 4 |
| :--- | ---: | ---: |
| 16 |  | 16 |
| Total Hours: 128 |  |  |
| Philosophy, BA/JD |  |  |

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## Philosophy, BS/JD

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## Philosophy, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

$\left.\begin{array}{llr}\text { PHIL } 2325 & \begin{array}{l}\text { Ancient Philosophy and Political } \\ \text { Thought }\end{array} & 4 \\ \text { or POLS 2325 } & \text { Ancient Philosophy and Political Thought }\end{array}\right)$

## Religious Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete four of the following:

| PHIL 1111 | Introduction to World Religions |
| :--- | :--- |
| PHIL 1120 | Understanding the Bible |
| PHIL 1220 | The Meaning of Death |
| PHIL 1260 | Apocalypticism in Film |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: <br>  <br> PHIL 1280 |
| Encountering Islam: Traditions, |  |
| PHIL 2394 | Debates, and Crosscultural Diversity |

PHIL $4390 \quad$ Cults and Sects
Elective Course

| Complete one | following courses: | 4 |
| :---: | :---: | :---: |
| PHIL 1104 | Goddesses, Witches, Saints, and Sinners: Women in Western Religions |  |
| PHIL 1110 | Introduction to Religion |  |
| PHIL 1111 | Introduction to World Religions |  |
| PHIL 1120 | Understanding the Bible |  |
| PHIL 1130 | Ethics: East and West |  |
| PHIL 1220 | The Meaning of Death |  |
| PHIL 1230 | Sound, Music, and Religion |  |
| PHIL 1231 | Image and Icon in South Asia |  |
| PHIL 1250 | Jesus in the Gospels, American Culture, and the Movies |  |
| PHIL 1260 | Apocalypticism in Film |  |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |  |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |  |
| PHIL 1272 | Ethics in the World's Religions |  |
| PHIL 1273 | Jainism |  |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions |  |
| PHIL 1276 | Indian Religions |  |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity |  |
| PHIL 1281 | Islam, Gender, and Fashion |  |
| PHIL 1285 | Jewish Religion and Culture |  |
| PHIL 1286 | American Judaism |  |
| PHIL 1287 | Modern Judaism |  |
| PHIL 1290 | Chinese Philosophy and Religion |  |
| PHIL 1295 | Religious Perspectives on Health and Healing |  |
| PHIL 1410 | From Vodou and the Rastas to AfroIslam: African Religions in the Americas |  |
| PHIL 1666 | The Problem of Evil in Film |  |
| PHIL 2300 | Mysticism |  |
| PHIL 2311 | The Kabbalah: Jewish Mysticism from the Zohar to Madonna |  |
| PHIL 2313 | Exploring the Jewish Diaspora-From Mountain Jews to Crypto-Jews |  |
| PHIL 2314 | Biblical Prophets and Their Interpreters |  |
| PHIL 2315 | Adam and Eve and Their Interpreters |  |
| PHIL 2316 | Interpreting the Bible |  |
| PHIL 2322 | Responses to the Holocaust |  |
| PHIL 2394 | Chinese Buddhism |  |
| PHIL 2395 | Japanese Buddhism |  |
| PHIL 2398 | Religion and Culture in Indian Cinema |  |
| PHIL 3387 | Religion, Nation, and Identity in Modern Jewish Thought |  |
| PHIL 3410 | Religion and Spirituality in the African Diaspora |  |
| PHIL 4390 | Cults and Sects |  |
| PHIL 4393 | Asian Religions in the United States |  |
| PHIL 4395 | Ramayana |  |


| PHIL 4545 | Religion and Politics in South Asia |
| :--- | :--- |
| PHIL 4546 | Advanced Biblical Studies: Hebrew <br> Bible |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4903 | Seminar in Religion |
| PHIL 4904 | Major Figures in Religious Studies |
| PHIL 4906 | Topics in Religious Studies |
| PHIL 4992 | Directed Study |
| PHIL 5011 | Comparative Religious Ethics |

## GPA Requirement

2.000 GPA required in the minor

## Ethics, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete four courses from the following list, two of which must be at or above the 2000 level:

| PHIL 1102 | Introduction to Contemporary Moral Issues | 4 |
| :---: | :---: | :---: |
| PHIL 1111 | Introduction to World Religions | 4 |
| PHIL 1120 | Understanding the Bible | 4 |
| PHIL 1130 | Ethics: East and West | 4 |
| PHIL 1145 | Technology and Human Values | 4 |
| PHIL 1150 | Sex, Power, and Oppression: An Introduction | 4 |
| PHIL 1155 | Introduction to Human Rights | 4 |
| PHIL 1160 | Introduction to Economic Justice | 4 |
| PHIL 1165 | Moral and Social Problems in Healthcare | 4 |
| PHIL 1170 | Business Ethics | 4 |
| PHIL 1180 | Environmental Ethics | 4 |
| PHIL 1185 | The Ethics of Food | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam | 4 |
| PHIL 1272 | Ethics in the World's Religions | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |
| PHIL 1276 | Indian Religions | 4 |
| PHIL 1290 | Chinese Philosophy and Religion | 4 |
| PHIL 1666 | The Problem of Evil in Film | 4 |
| PHIL 2001 | Ethics and Evolutionary Games | 4 |
| PHIL 2301 | Philosophical Problems of Law and Justice | 4 |
| PHIL 2302 | Philosophical Problems of War and Peace | 4 |
| PHIL 2303 | Social and Political Philosophy | 4 |
| PHIL 2325 | Ancient Philosophy and Political Thought | 4 |


| PHIL 2394 | Chinese Buddhism | 4 |
| :--- | :--- | :--- |
| PHIL 2395 | Japanese Buddhism | 4 |
| PHIL 3435 | Moral Philosophy | 4 |
| PHIL 3465 | Advanced Medical Ethics | 4 |
| PHIL 3480 | Environmental Philosophy | 4 |
| PHIL 4390 | Cults and Sects | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 |
| PHIL 5001 | Global Justice | 4 |

## GPA Requirement

2.000 GPA required in the minor

## Political Science

Website (http://www.northeastern.edu/polisci)

## John Portz, PhD

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Jermichael Young, Administrative Secretary, je.young@northeastern.edu
Political science teaches the art and science of politics in the United States and throughout the world. Study leadership with a former U.S presidential candidate. Spend seven weeks visiting the United Nations and other organizations in Geneva, Switzerland. Apply for the White House internship program or to the British Parliament. Develop aid programs in a Saharan village in Niger. Write opinion pieces for an outstanding student political journal. Compete to represent an Arab country as part of one of the top Model Arab League teams in the United States. Political science is a discipline and a subject of study that has worldwide applications and exciting and experiential job opportunities. Politics matter wherever there are groups of people trying to get things done.

Political science majors start their journey with core courses on American government, comparative politics, international relations, and research methods. After that, students choose from a wealth of courses on specific topics from international security to legal studies to public policy.

Political science co-ops include responsible positions 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 officials, or at an international organization or nonprofit.

Political science students are among the most active on campus through extracurricular programs designed to expand their leadership ability, including the Political Science Student Association, International Relations Council, Pi Sigma Alpha honor society, Model United Nations, Model Arab League, Model NATO, student government, College Democrats and Republicans, and other student groups. Students also may qualify for the University Honors Program. With these experiences on their resumés, students are prepared to succeed in law school, graduate school, careers in government and the nonprofit sector, as well as in teaching, journalism, legislative or lobbying positions, public relations activities, and work in international corporations and nongovernmental organizations (NGOs).

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## PlusOne Program (MA) in Political Science

Political science majors at the end of their sophomore year or the beginning of their junior year may qualify for application to the PlusOne program that combines the BA with the master's degree in political science. Students interested in this option should consult with the departmental graduate coordinator.

## Programs

## Bachelor of Arts (BA)

- Political Science (p. 782)
- Environmental Studies and Political Science (p. 786)
- Media and Screen Studies and Political Science (p. 788)
- Political Science and Communication Studies (p. 790)
- Political Science and Economics (p. 792)
- Political Science and International Affairs (p. 794)
- Political Science and Philosophy (p. 799)
- Sociology and Political Science (p. 801)


## Bachelor of Science (BS)

- Political Science (p. 803)
- Biology and Political Science (p. 806)
- Criminal Justice and Political Science (p. 808)
- Political Science and Business Administration (p. 810)
- Political Science and Communication Studies (p. 813)
- Political Science and Economics (p. 815)
- Political Science and Philosophy (p. 817)
- Politics, Philosophy, and Economics (p. 575)


## Dual Degrees

- Political Science, BA/MA (p. 819)
- Political Science, BA/MPA (p. 821)
- Political Science, BA/Security and Resilience Studies, MS (p. 823)
- Political Science, BS/MA (p. 827)
- Political Science, BS/MPA (p. 829)
- Political Science, BS/Security and Resilience Studies, MS (p. 832)
- Political Science, BA/JD (p. 827)
- Political Science, BS/JD (p. 835)


## Minors

- Political Science (p. 835)
- American Political Institutions (p. 836)
- International Security Studies (p. 836)


## Political Science, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Introduction to College

Complete "Introduction to College" for your major.
Political Science Major Requirements

## Political Science Requirements

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

Political Science Capstone
Complete one of the following:

| POLS 4701 | Political Science Senior Capstone |
| :--- | :--- |
| POLS 4703 | Senior Thesis |

Political Science Experiential Learning Requirement
Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

| Courses |
| :--- |
| Complete one of the following:  <br> POLS 4910 Model United Nations <br> POLS 4915 Model Arab League <br> POLS 4917 Model European Union <br> POLS 4918 Model NATO <br> POLS 4942 Internship in Politics <br> POLS 4944 Student Leadership Practicum <br> POLS 4948 Community-Based Research Practicum <br> Co-op or Study Abroad  |

Co-op or Study Abroad
Complete one cooperative education experience or one study-
abroad experience.

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete six political science electives with a minimum of

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 783).

- American political institutions
- Campaigns and elections
- Comparative politics
- Identity, culture, and politics
- International relations and diplomacy
- Law and legal studies
- Public policy
- Security studies


## Political Science Major Credit Requirement

Complete 52 semester hours in the major.

## Program Requirements

128 total semester hours required

| Concentrations |  |  |
| :--- | :--- | ---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | 16 |
| Complete four of the following: |  |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:
8

| POLS 2345 | Urban Policies and Politics |  |
| :---: | :--- | :--- |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling | Hours |
| POLS 3304 | Presidential Nominating Process |  |
| CONCENTRATION IN COMPARATIVE POLITICS <br> Code |  |  |
| Theoretical Requirement | Title |  |


| Complete one of the following: |  | 4 |
| :---: | :---: | :---: |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of the following: |  | 8 |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia |  |
| POLS 3460 | Contemporary Government and Politics in Africa |  |
| POLS 3465 | Government and Politics in the Middle East |  |
| POLS 3475 | Government and Politics in Latin America |  |
| POLS 3480 | Government and Politics in Japan |  |
| POLS 3485 | China: Governance and Foreign Policy |  |
| Experiential/Practicum Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 4915 | Model Arab League |  |
| POLS 4917 | Model European Union |  |
| POLS 4918 | Model NATO |  |
| POLS 4937 | Dialogue of Civilizations: Government and Politics Abroad |  |

$\begin{array}{ll}\text { CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS } \\ \text { Code } & \text { Title Hours }\end{array}$
Core Course

| POLS 3415 | Ethnic Political Violence | 4 |
| :---: | :--- | :--- |
| or POLS 3418 | Nationalism |  |

Electives
Complete three of the following: 12

| POLS 2333 | Politics and Film |
| :--- | :--- |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

## $\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title }\end{array}$

Experiential/Practicum Requirement
Complete one of the following:
4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |


| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| :---: | :--- |
| Core Courses | International Political Economy |
| Complete three of the following: |  |
| POLS 3405 | In |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br>  <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |

## CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## CONCENTRATION IN PUBLIC POLICY

Code Title Hours

Core Requirement
POLS 3307 Public Policy and Administration 4
Electives
Complete three of the following: 12
POLS $2334 \quad$ Bureaucracy and Government Organizations
POLS 2335 Budgeting and Taxation
POLS $2340 \quad$ Business and Government
POLS 2345 Urban Policies and Politics
POLS 2350 State and Local Politics
POLS 2357 Growth and Decline of Cities and Suburbs
POLS $2385 \quad$ U.S. Health and Welfare Policy POLS 2390 Science, Technology, and Public Policy
POLS 2395 Environmental Politics and Policy
POLS 3315 Interest Groups and Public Policy
POLS 3402 Survey Research and Polling
POLS 3410 Nontraditional Security Issues
POLS 3412 Homeland Security Policy and Politics
POLS 3425 U.S. Foreign Policy
POLS 4948 Community-Based Research Practicum

## CONCENTRATION IN SECURITY STUDIES

Code Title Hours
Complete four of the following: 16

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |


| POLS 3420 | U.S. National Security Policy |
| :--- | :--- |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |
| Plan of Study |  |
| Five Years, Three Co-ops in Summer 2/Fall |  |


| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1155 | 4 POLS 1150 | 4 Vacation | 0 Vacation | 0 |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| Elective | 4 MATH 1215 | 4 |  |  |
| Foreign <br> language <br> core course | 4 POLS 1160 | 4 |  |  |
| POLS 1000 | 1 POLS 1161 | 0 |  |  |
| ENGW 1111 | 4 Foreign <br> language <br> core course | 4 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 2399 | 4 POLS 2400 | 4 Vacation | 0 Co-op | 0 |
| POLS <br> intermediate/ <br> advanced <br> undergraduat, <br> elective | 4 POLS <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 Elective | 4 |  |
| Foreign <br> language <br> core course | 4 Elective | 4 |  |  |
| Elective | 1 | 12 | 0 | 0 |
| EESH 2000 | 17 |  |  |  |


| Year 3 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring |  | Hours Summer 1 |  | Hours Summer 2 |  | Hours |
| Co-op | 0 | ENGW 3315 | 4 | POLS 2326 | 4 | Co-op | 0 |
|  |  | POLS 2400 | 4 | ENVR 5210 | 4 |  |  |
|  |  | ENVR 3300 | 4 |  |  |  |  |
|  |  | ENVR 3301 | 1 |  |  |  |  |
|  |  | POLS <br> undergradu elective | 4 |  |  |  |  |
|  | 0 |  | 17 |  | 8 |  | 0 |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ENVR 5250 | 4 Elective | 4 Co-op | 0 |
|  | POLS <br> undergraduatı <br> elective | 4 Elective | 4 |  |
|  |  |  |  |  |


|  | POLS <br> undergraduate <br> elective | 4 |  |
| :--- | :--- | ---: | :--- |
|  | Foreign <br> language <br> core course | 4 | 8 |
| Year 5 | 0 | 16 | 0 |
| Fall | Hours Spring | Hours |  |
| Co-op | 0 Elective | 4 |  |
|  | Elective | 4 |  |
|  | Elective | 4 |  |
|  | Elective | 4 |  |
| Total Hours: 127 |  | 16 |  |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENGW 1111 | 4 POLS 1155 | 4 Vacation | 0 Vacation | 0 |
| MATH 1251 | 4 POLS 1156 | 0 |  |  |
| POLS 1150 | 4 ECON 1116 | 4 |  |  |
| POLS 1151 | 0 ENVR 1200 | 4 |  |  |
| ENVR 1101 | 4 SOCL 1246 | 4 |  |  |
|  | 16 | 16 | 0 | 0 |
| Year 2 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1160 | 4 Co -op | 0 Co-op | 0 PHIL 3480 | 4 |
| POLS 1161 | 0 |  | ECON 3423 | 4 |
| ENVR 1445 | 4 |  |  |  |
| HIST 2342 | 4 |  |  |  |
| Foreign language core course | 4 |  |  |  |
|  | 16 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 POLS 2326 | 4 |
| POLS 2400 | 4 |  | ENVR 5210 | 4 |
| ENVR 3300 | 4 |  |  |  |
| ENVR 3301 | 1 |  |  |  |
| POLS <br> undergraduate <br> elective | 4 |  |  | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENVR 5250 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| POLS <br> undergradute <br> elective | 4 |  |  |  |
| POLS <br> undergraduate <br> elective | 4 |  |  |  |


| Foreign <br> langauge <br> core course | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| POLS 2395 | 4 Elective | 4 |
| Foreign <br> language <br> core course | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 129

## Environmental Studies and Political Science, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Environmental Studies Requirements



| Environment |  | 4 |
| :--- | :--- | ---: |
| ENVR 1101 | Environmental Science | 4 |
| Quantitative Methods |  | $4-5$ |
| Complete one of the following: |  |  |
| ENVR 3300 Geographic Information Systems <br> and ENVR 3301 and Lab for ENVR 3300 |  |  |
| MATH 2280 | Statistics and Software |  |

## Political Science Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| and POLS 1151 | and Recitation for POLS 1150 |  |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |

Political Thought
Complete one of the following: 4

| POLS 2325 | Ancient Philosophy and Political <br> Thought |
| :--- | :--- |
| POLS 2326 | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Restricted Electives
Complete two of the following:
$\left.\left.\begin{array}{ll}\text { POLS 2334 } & \begin{array}{l}\text { Bureaucracy and Government } \\ \text { Organizations }\end{array} \\ \hline \text { POLS 2390 } & \text { Science, Technology, and Public Policy }\end{array}\right] \begin{array}{ll}\text { POLS 3307 } & \text { Public Policy and Administration }\end{array}\right]$

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 787).

- Comparative Politics
- International Relations
- Law and Legal Studies
- Public Policy


## Integrative Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Courses |  | 8 |
| Complete two of the following: |  |  |
| ENVR 5210 |  | Environmental Planning |
| ENVR 5250 | Geology and Land-Use Planning |  |
| POLS 2395 | Environmental Politics and Policy |  |
| Capstone Requirement |  |  |


| Complete one of the following: | 1-8 |
| :--- | :--- |
| ENVR 4900 | Earth and Environmental Science <br> Capstone |
| ENVR 4997 Senior Thesis <br> POLS 4701 Political Science Senior Capstone <br> POLS 4702 Senior Thesis Preparation <br> and POLS 4703 and Senior Thesis |  |

## Environmental Studies and Political Science Combined-Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

|  |  |
| :--- | :--- | | Concentrations |  |
| :--- | :--- |
| CONCENTRATION IN COMPARATIVE POLITICS |  |
| Code | Title |
| Theoretical Requirement |  |$\quad$ Hours

## CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Experiential/Practicum | Requirement |  |
| Complete one of the following: | 4 |  |
| POLS 4910 | Model United Nations |  |
| POLS 4915 | Model Arab League |  |
| POLS 4917 | Model European Union |  |


| POLS 4918 | Model NATO |  |
| :---: | :---: | :---: |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |  |
| Core Courses |  |  |
| Complete three of the following: |  | 12 |
| POLS 3405 | International Political Economy |  |
| POLS 3406 | International Law |  |
| POLS 3407 | International Organizations |  |
| POLS 3408 | International Security |  |
| POLS 3409 | Global Governance |  |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| CONCENTRATION IN LAW AND LEGAL STUDIES |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

CONCENTRATION IN PUBLIC POLICY
Code Title Hours

| Core Requirement |  | 4 |
| :--- | :--- | :--- |
| POLS 3307 | Public Policy and Administration |  |

Electives
Complete three of the following: 12

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |


| POLS 2385 | U.S. Health and Welfare Policy |
| :--- | :--- |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 POLS 1155 | 4 Vacation | 0 Vacation | 0 |


| MATH 1251 | 4 POLS 1156 | 0 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| POLS 1150 | 4 ECON 1116 | 4 |  |  |
| POLS 1151 | 0 ENVR 1200 | 4 |  | 0 |
| ENVR 1101 | 4 SOCL 1246 | 4 | 0 | 0 |
|  | 16 | 16 |  | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1160 | 4 PHIL 3480 | 4 Vacation | 0 Co-op | 0 |
| POLS 1161 | 0 ECON 3423 | 4 |  |  |
| HIST 2342 | 4 POLS 2395 | 4 |  |  |
| Foreign <br> language <br> core course | 4 Foreign <br> language <br> core course | 4 |  |  |
| ENVR 1445 | 4 | 16 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ENGW 3315 | 4 POLS 2326 | 4 Co-op | 0 |
|  | POLS 2400 | 4 ENVR 5210 | 4 |  |
|  | ENVR 3300 | 4 |  |  |
|  | ENVR 3301 | 1 |  |  |
|  | POLS <br> undergraduate <br> elective | 4 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENVR 5250 | 4 Elective | 4 Co-op | 0 |
|  | POLS <br> undergraduat <br> elective | 4 Elective | 4 |  |
|  | POLS <br> undergraduate <br> elective | 4 |  |  |
|  | Foreign <br> language <br> core course | 4 | 8 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Co-op | 0 Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | ---: | :---: | :---: | ---: |
| ENGW 1111 | 4 POLS 1155 | 4 Vacation | 0 Vacation | 0 |
| MATH 1251 | 4 POLS 1156 | 0 |  |  |
| POLS 1150 | 4 ECON 1116 | 4 |  |  |
| POLS 1151 | 0 ENVR 1200 | 4 |  |  |


| ENVR 1101 | 4 SOCL 1246 | 4 |  |  |
| :--- | :--- | ---: | :--- | :--- |
| 16 | 16 | 0 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| POLS 1160 | 4 Co-op | 0 Co-op | 0 PHIL 3480 | 4 |
| POLS 1161 | 0 |  | ECON 3423 | 4 |
| ENVR 1445 | 4 |  |  |  |
| HIST 2342 | 4 |  |  |  |
| Foreign <br> language <br> core course | 4 |  |  | 8 |
|  | 16 | 0 | 0 |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | ---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 POLS 2326 | 4 |
| POLS 2400 | 4 |  | ENVR 5210 | 4 |
| ENVR 3300 | 4 |  |  |  |
| ENVR 3301 | 1 |  |  |  |
| POLS <br> undergraduate <br> elective | 4 |  |  | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |  |
| :---: | :---: | :---: | :---: | :---: |
| ENVR 5250 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| POLS undergradute elective | 4 |  |  |  |
| POLS undergraduate elective | 4 |  |  |  |
| Foreign langauge core course | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| POLS 2395 | 4 Elective | 4 |
| Foreign <br> language <br> core course | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 129

## Media and Screen Studies and Political Science, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Media Studies Requirements <br> Code <br> Ritle | Hours |  |
| :--- | :--- | ---: |
| Introduction to College |  |  |
| MSCR 1000 | Media and Screen Studies at <br>  <br>  <br>  <br> Northeastern | 1 |
| Required Courses |  | 4 |
| MSCR 1220 | Media, Culture, and Society | 4 |
| MSCR 4623 | Theories of Media and Culture | 4 |
| MSCR 2220 | Understanding Media and Film | 4 |


| Elective Courses |  |
| :--- | :--- |
| Complete four of the following: | 16 |


| CINE 2160 | Narrative Filmmaking |
| :--- | :--- |
| CINE 2350 | History of Film |
| CINE 2394 | Modern Film and Global Culture |
| CINE 3389 | Screenwriting |
| CINE 3392 | Gender and Film |
| CINE 3446 | Topics in Documentary Production |


| CINE 3920 | Topics in Film Studies |
| :--- | :--- |
| CINE 3900 | Film and Psychoanalysis |

MSCR 1230 Introduction to Film Production

| MSCR 1310 | Introduction to Digital Media Culture |
| :--- | :--- |
| MSCR 2302 | Advertising and Promotional Culture |


| MSCR 2325 | Global Media |
| :--- | :--- |
| MSCR 2500 | Digital Media Research |

MSCR $2895 \quad$ Film Analysis

| MSCR 3210 | Special Topics in Media and Screen <br> Studies |
| :--- | :--- |


| MSCR 3300 | Media Activism |
| :--- | :--- |
| MSCR 3402 | Television and Society |
| MSCR 3422 | Media Audiences |

Complete two POLS courses, or complete a concentration8

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below ( p ).

- Identity, Culture and Politics (p. )
- Law and Legal Studies (p. )


## Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Courses |  | 4 |
| MSCR 4602 | Media and Democracy | 4 |
| POLS 3320 | Politics and Mass Media | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

| 128 total semester hours required |  |  |
| :---: | :---: | :---: |
| Concentrations |  |  |
| CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS |  |  |
| Code | Title | Hours |
| Core Course |  |  |
| POLS 3415 | Ethnic Political Violence | 4 |
| or POLS 3418 | Nationalism |  |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the Unit |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3324 | Law and Society |  |

CONCENTRATION IN LAW AND LEGAL STUDIES

| Code |
| :--- |
| Complete four of the following: |


| POLS 2330 | American Political Thought | 16 |
| :--- | :--- | ---: |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## Political Science and Communication Studies, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Political Science Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Courses in Political Science |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Thought |  |  |
| Complete one of the following: |  | 4 |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Upper-Division Electives |  |  |
| Complete two courses from the following range: |  | 8 |
| POLS 3300 to POLS 5999 |  |  |
| Political Science Electives |  |  |
| Complete two courses from the following range: |  | 8 |
| POLS 2000 to POLS 5999 |  |  |
| Methodology |  |  |
| $\text { POLS } 2399$ | Research Methods in Political Science | 4 |

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 791).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Public Policy


## Communication Studies Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Courses in Political Communication |  |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| COMM 1210 | Persuasion and Rhetoric | 4 |
| Communication Studies Electives |  |  |
| Complete six of the following: | 24 |  |
| COMM 1231 | Principles of Organizational <br> Communication |  |
| COMM 1310 | Classical Foundations of <br> Communication |  |
| COMM 1331 | Legal Argumentation, Advocacy, and <br> Citizenship |  |
| COMM 1414 | Social Movement Communication <br> Great Speakers and Speeches 1, 1630- <br> COM |  |
| COMM 2301 | Communication Research Methods |  |


| COMM 2303 | Global and Intercultural Communication |
| :---: | :---: |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| COMM 3201 | Health Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3331 | Argumentation and Debate |
| COMM 3409 | Advocacy Writing |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |
| COMM 3415 | Communication Criticism |
| COMM 3451 | Advertising Practices |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3500 | Environmental Issues, Communication, and the Media |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social Change |
| COMM 4102 | Health Communication Campaigns |
| COMM 4533 | Consultation Skills |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| COMM 4631 | Crisis Communication and Image Management |
| COMM 4901 | Seminar in Communications |
| COMM 4918 | Special Topics in Communication Studies |
| COMM 4992 | Directed Study |
| COMM 4994 | Internship in Communication |

## Integrative Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Integrative Courses |  |  |
| POLS 3320 | Politics and Mass Media | 4 |
| or COMM 3320 | Political Communication |  |
| POLS 2333 | Politics and Film | 4 |
| Capstone Requirement |  |  |
| Complete one of the toward the political elective requirement | following. This course also counts cience or communication studies | 4 |
| COMM 4102 | Health Communication Campaigns |  |
| COMM 4530 | Communication and Quality of Life |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4603 | Advocacy Workshop |  |
| COMM 4625 | Online Communities |  |
| POLS 4701 | Political Science Senior Capstone |  |
| POLS 4703 | Senior Thesis |  |

Political Science and Communication Studies CombinedMajor Credit Requirement
Complete 72 semester hours in the major.

## Program Requirement

128 total semester hours required

## Concentrations

## CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

## CONCENTRATION IN CAMPAIGNS AND ELECTIONS <br> Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.
POLS 3160 Campaign Strategy 4
POLS 4947 Campaign and Elections Practicum 4

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |  |
| :--- | :--- | :--- |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3304 | Presidential Nominating Process |  |
| CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS |  |  |
| Code <br> Core Course | Title |  |
| POLS 3415 | Ethnic Political Violence |  |
| or POLS 3418 | Nationalism |  |
| Electives |  | 12 |
| Complete three of the following: |  |  |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and |  |


| POLS 3320 | Politics and Mass Media |  |
| :---: | :---: | :---: |
| POLS 3324 | Law and Society |  |
| CONCENTRATION IN LAW AND LEGAL STUDIES |  |  |
| Code | Title | Hours |
| Complete four | following: | 16 |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |
| CONCENTRATION IN PUBLIC POLICY |  |  |
| Code | Title | Hours |
| Core Requireme |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 4948 | Community-Based Research Practicum |  |

## Political Science and Economics, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

## Political Science Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |

## Political Theory

Complete one of the following: 4

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 2326 | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Restricted Electives
Complete two of the following: 8

| POLS 3307 | Public Policy and Administration |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |

POLS $2360 \quad$ Politics of Poverty
POLS 3405 International Political Economy
POLS 3487 Politics of Developing Nations

## Political Science Electives

Complete two courses from the following range, or complete 8
a concentration as outlined below:

```
POLS 3300 to POLS 5999
```


## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 793).

- American Political Institutions
- Campaigns and Elections
- International Relations and Diplomacy
- Public Policy


## Economics Major Requirements for BA

Code Title Hours

## Breadth Courses

| MATH 1231 | Calculus for Business and Economics | 4 |
| :--- | :--- | :--- |
| CS 1100 | Computer Science and Its Applications | 4 |

## Required Economics Courses

Grades in the required economics courses and in Quantitative
Techniques (POLS 2400) or Statistics (ECON 2350) must
average a minimum of 2.000 :

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |


| ECON 3520 | History of Economic Thought | 4 |
| :---: | :---: | :---: |
| Economics Electives |  |  |
| Complete three of the following. At least one course must be at or above the intermediate level: |  | 12 |
| ECON 1230 | Healthcare and Medical Economics |  |
| ECON 1240 | Economics of Crime |  |
| ECON 1260 | Contested Issues in the U.S. Economy |  |
| ECON 1270 | Economic Status of Ethnic Minorities |  |
| ECON 1290 | History of the Global Economy |  |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 3415 | Poverty and Income |  |
| ECON 3420 | Urban Economic Issues |  |
| ECON 3423 | Environmental Economics |  |
| ECON 3424 | Law and Economics |  |
| ECON 3440 | Public Finance |  |
| ECON 3461 | Government and Business |  |
| ECON 4634 | Comparative Economics |  |
| ECON 4635 | International Economics |  |

## Integrative Requirements

Code Title Hours

## Senior Seminar/Capstone

Complete one of the following:

| ECON 4692 | Senior Economics Seminar |
| :--- | :--- |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Quantitative Techniques/Statistics

Complete either of the statistics and departmental elective combinations listed below:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Combination A |  |  |
| Statistics |  | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Economics |  | 4 |
| Complete one of the following: |  |  |


| ECON 3404 | International Food Economics and <br> Policy |
| :--- | :--- |
| ECON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3423 | Environmental Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |


| Code <br> Combination B | Title | Hours |
| :--- | :--- | :---: |
| Statistics |  | 4 |
| ECON 2350 | Statistics | 4 |
| Political Science |  | 4 |
| Complete one course from the following range: |  |  |

POLS 2401 to POLS 5999

## Program Requirement

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

## CONCENTRATION IN CAMPAIGNS AND ELECTIONS

| Code | Title | Hours |
| :--- | :--- | :--- |
| Required Courses |  |  |

4 With advisor approval, a co-op or internship may be substituted in place of POLS 4947.
POLS 3160 Campaign Strategy 4
POLS 4947 Campaign and Elections Practicum 4

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY
Code Title Hours

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International |

Core Courses
Complete three of the following: 12
POLS 3405 International Political Economy
POLS 3406 International Law
POLS 3407 International Organizations
POLS 3408 International Security

| POLS 3409 | Global Governance |  |
| :---: | :---: | :---: |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| CONCENTRATION IN PUBLIC POLICY |  |  |
| Code | Title | Hours |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 4948 | Community-Based Research Practicum |  |

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| POLS 1155 | 4 POLS 1150 | 4 |  |  |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| ECON 1115 | 4 CS 1100 | 4 |  |  |
| Elective | 4 ECON 1116 | 4 |  | 0 |
|  | 16 | 16 | 0 |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1160 | 4 POLS 2400 | 4 Vacation | 0 Vacation | 0 |
| POLS 1161 | 0 ECON 2315 | 4 |  |  |
| ECON <br> undergraduate <br> elective | 4 <br> POLS <br> undergraduate <br> elective | 4 |  |  |
| POLS <br> undergraduat <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 | 16 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Elective | 4 Vacation | 0 Vacation | 0 |


| POLS 2326 |  | POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECON 2316 | 4 | Elective | 4 |  |  |
| ECON undergraduat elective | 4 | Elective | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| ECON 3560 | 4 | POLS 4701 | 4 |  |  |
| POLS intermediate/ advanced undergraduat elective |  | ECON <br> intermediate/ <br> advanced <br> undergraduat elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| Elective | 4 | Elective | 4 |  |  |
| 16 |  |  | 16 |  |  |

Total Hours: 128

## Political Science and International Affairs, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

Political Science Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |


| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

## Political Science Electives/Concentration for BA

Complete four upper-division political science electives, or complete one of the following concentrations. If you are working toward a concentration, declare it with your advisor in order for it to be added to your record. Requirements for the concentrations are listed below (p. 797).

| Code $\quad$ Title | Hours |
| :--- | ---: |
| Political Science Electives |  |
| Complete four Political Science courses at or above POLS | 16 |
| 2300 |  |

- Concentration in Campaigns and Elections
- Concentration in Comparative Politics
- Concentration in Identity, Culture and Politics
- Concentration in International Relations and Diplomacy
- Concentration in Security Studies


## International Affairs Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| HIST 2211 | The World Since 1945 | 4 |
| ECON 1115 or ECON 1116 | Principles of Macroeconomics Principles of Microeconomics | 4 |
| Global Dynamics |  |  |
| Complete two of the following, one of which must be numbered 2000 or above: ${ }^{1}$ |  | 6-8 |
| INTL 1185 or AFRS 1185 | Gender in the African Diaspora Gender in the African Diaspora |  |
| INTL 2240 | Global Population and Development |  |
| INTL 2300 | Religion in International Affairs |  |
| INTL 2400 | Politics of Islam and Gender |  |
| INTL 2480 or WMNS 2480 | Women and World Politics Women and World Politics |  |
| INTL 3200 | Cities in a Global Context |  |
| INTL 3460 | Transnational Activism in Global Civil Society |  |
| INTL 4945 | Dialogue of Civilizations: Global Issues in Comparative Perspective |  |
| INTL 5200 | Political Economy: Interdisciplinary Perspectives |  |
| AFAM 2301 | Foundations of Black Culture 2 |  |
| AFAM 2345 | The Black Experience in the Caribbean |  |
| AFAM 2600 | Contemporary Issues: Race, Science, and Technology |  |
| AFAM 2639 | Globalism, Racism, and Human Rights |  |
| AFRS 3424 | Epidemiology of Pandemic Diseases and Health Disparities in the African Diaspora |  |
| ANTH 1101 | Peoples and Cultures |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3415 | Anthropology of Travel and Tourism |  |
| COMM 2303 | Global and Intercultural Communication |  |


| MSCR 2325 | Global Media |
| :---: | :---: |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| $\text { JRNL } 3300$ <br> or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |


| POLS 3408 | International Security |
| :---: | :---: |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam |
| PHIL 1272 | Ethics in the World's Religions |
| SOCL 1246 | Environment and Society |
| SOCL 1283 | Globalization and Social Change |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 4522 | Political Ecology and Environmental Justice |

${ }^{1}$ Comparative Politics (POLS 1155) and International Relations (POLS 1160) are not permitted to count in the Global Dynamics area for the Political Science and International Affairs, BA as they are required in other areas of the major.

## Regional Analysis Requirement

Complete three of the following courses, two of which must be in one region. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Africa |  |  |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |
| ANTH 4510 or INTL 4510 | Anthropology of Africa Anthropology of Africa | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 |
| ENTR 3308 | Business Economic History of South Africa | 4 |
| HIST 1180 | African History | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 |
| HIST 2397 | Modern Africa | 4 |
| MUSC 1128 | Music of Africa | 4 |



| CLTR 1505 | Introduction to Latin American Culture | 4 |
| :---: | :---: | :---: |
| CLTR 1508 | Cuban History and Culture through Film | 4 |
| CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| CLTR 1240 | Latin American Film | 4 |
| CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
| CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1187 | Introduction to Latin American History | 4 |
| HIST 1260 | Modern Latin America | 4 |
| LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| LITR 1260 | Caribbean Literature and Culture | 4 |
| LITR 4655 | Latin American Literature | 4 |
| POLS 3475 | Government and Politics in Latin America | 4 |
| Middle East |  |  |
| INTL 1160 | Middle East Studies | 4 |
| INTL 2100 | Modern Israel | 4 |
| INTL 2200 | America and the Middle East | 4 |
| INTL 2360 | Human Rights in the Middle East | 4 |
| INTL 2400 | Politics of Islam and Gender | 4 |
| INTL 3250 | Democracy and Development in North Africa and the Mediterranean | 4 |
| CLTR 1502 | Introduction to Arabic Culture | 4 |
| ECON 1292 | Economic History of the Middle East | 4 |
| HIST 1185 | Introduction to Middle Eastern History | 4 |
| HIST 1290 | Modern Middle East | 4 |
| HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 4945 | North African History Abroad | 4 |
| JWSS 2500 | Zionism and the Challenges of Jewish Statehood | 4 |
| POLS 3465 | Government and Politics in the Middle East | 4 |
| POLS 3470 | Arab-Israeli Conflict | 4 |
| POLS 4915 | Model Arab League | 4 |
| PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| PHIL 1280 | Encountering Islam: Traditions, Debates, and Crosscultural Diversity | 4 |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  |  |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet Economic History | 4 |


| LITR 3503 | Russian Literature in Translation | 4 |
| :--- | :--- | :--- |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediate level two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Integrative Requirements

Code Title Hours
Capstone
Complete one of the following: 4

| POLS 4701 | Political Science Senior Capstone |
| :--- | :--- |
| POLS 4703 | Senior Thesis |
| INTL 4700 | Senior Capstone Seminar in <br>  |

## International Experiential Learning

Complete at least one "international semester" (one full semester) via study abroad, international internship, or international co-op, or complete two summer half semesters via study abroad.

## Political Science and International Affairs Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Concentrations

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

## CONCENTRATION IN COMPARATIVE POLITICS

| Code Title | Hours |  |
| :--- | ---: | ---: |
| Theoretical Requirement |  |  |
| Complete one of the following: | 4 |  |
| POLS 2370 | Religion and Politics |  |


| POLS 3415 | Ethnic Political Violence |  |
| :---: | :---: | :---: |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of | following: | 8 |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia |  |
| POLS 3460 | Contemporary Government and Politics in Africa |  |
| POLS 3465 | Government and Politics in the Middle East |  |
| POLS 3475 | Government and Politics in Latin America |  |
| POLS 3480 | Government and Politics in Japan |  |
| POLS 3485 | China: Governance and Foreign Policy |  |
| Experiential/Practicum Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 4915 | Model Arab League |  |
| POLS 4917 | Model European Union |  |
| POLS 4918 | Model NATO |  |
| POLS 4937 | Dialogue of Civilizations: Government and Politics Abroad |  |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN SECURITY STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 3408 | International Security |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3420 | U.S. National Security Policy |  |
| POLS 3423 | Terrorism and Counterterrorism |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3430 | Revolution, Civil War, and Insurrection |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 4918 | Model NATO |  |

## CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code <br> Core Course | Title | Hours |
| :--- | :--- | ---: |
| POLS 3415 |  |  |
| or POLS 3418 |  |  |$\quad$| Ethnic Political Violence |
| :--- |
| Electives |
| Complete three of the following: |$\quad 4$

## $\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title Hours }\end{array}$

Experiential/Practicum Requirement
Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |

Plan of Study
Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ENGW 1111 | 4 | HIST 2211 | 4 Vacation | 0 Vacation | 0 |
| MATH 1215 | 4 | POLS 1150 | 4 |  |  |
| POLS 1155 | 4 | POLS 1151 | 0 |  |  |
| POLS 1156 |  | Foreign language core course | 4 |  |  |
| INTL 1101 | 4 | POLS 1160 | 4 |  |  |
| POLS 1000 | 1 | POLS 1161 | 0 |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ECON 1290 |  | INTL undergraduate elective | 4 Vacation | 0 Co-op | 0 |
| POLS 2326 | 4 | POLS 2400 | 4 |  |  |
| POLS undergraduate elective | - 4 | POLS undergraduate elective | 4 |  |  |
| Foreign language core course | 4 | Foreign language core course | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |


| Year 3 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours | Summer 1 | Hours | Summer 2 | Hours |
| Co-op | 0 | INTL 3400 |  | INTL undergraduate elective | 4 | Co-op | 0 |
|  |  | POLS <br> undergraduat elective | 4 | POLS undergraduat elective | 4 |  |  |
|  |  | INTL undergraduate elective | 4 |  |  |  |  |
|  |  | ENGW 3315 | 4 |  |  |  |  |
| 0 |  |  | 16 |  | 8 |  | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | INTL <br> undergraduate <br> elective | 4 Elective | 4 Co-op | 0 |
|  | INTL <br> undergraduatı <br> elective | 4 Elective | 4 |  |
|  | POLS <br> undergraduate <br> elective | 4 |  |  |
|  | Elective | 4 | 8 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Co-op | 0 INTL 4700 | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 129

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 HIST 2211 | 4 Vacation | 0 Vacation | 0 |
| ENGW 1111 | 4 Foreign <br> language <br> core course | 4 |  |  |
| MATH 1215 | 4 POLS 1150 | 4 |  |  |
| POLS 1155 | 0 POLS 1151 | 0 |  |  |
| POLS 1156 | 4 POLS 1160 | 4 | 0 |  |
| INTL 1101 | 1 POLS 1161 | 0 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ECON 1290 | 4 Co-op | 0 Co-op | 0 <br> POLS <br> undergraduate <br> elective | 4 |
| POLS 2326 | 4 | INTL <br> undergraduatı | 4 |  |
| elective |  |  |  |  |$\quad$.



Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| INTL <br> undergraduate <br> elective | 4 Co-op | 0 Co-op | 0 INTL <br> undergraduate <br> elective | 4 |
| POLS 2400 | 4 | POLS <br> undergraduatı <br> elective | 4 |  |
| POLS <br> undergraduate <br> elective | 4 | 4 | 0 | 8 |
| Foreign <br> language <br> core course | 4 | 0 |  |  |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| INTL 3400 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| POLS undergraduat elective | 4 |  |  |  |
| INTL undergraduate elective | 4 |  |  |  |
| ENGW 3315 | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| INTL | 4 INTL 4700 | 4 |
| undergraduate <br> elective |  |  |
| POLS <br> undergraduat <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 129

## Political Science and Philosophy, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

## Political Science Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Courses in Political Science |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| Political Thought/Theory |  |  |
| Complete two of the following: |  | 8 |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Upper-Division Electives |  |  |
| Complete two courses in the following range: |  | 8 |
| POLS 3000 to POLS 5999 |  |  |
| Political Science Electives |  |  |
| Complete two | s in the following range: | 8 |

POLS 2000 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 800).

- Campaigns and Elections
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy

| Philosophy Requirements |  |
| :--- | :--- | ---: |
| Code | Hours |
| Philosophy Required Courses |  |$\quad$| PHIL 1115 | Introduction to Logic |
| :--- | :--- |
| or PHIL 1215 | Symbolic Logic |
| PHIL 2325 | Ancient Philosophy and Political <br> Thought |
| or POLS 2325 | Ancient Philosophy and Political Thought |
| PHIL 2330 | Modern Philosophy |

Advanced Philosophy Elective
Complete one of the following:

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |
| PHIL 4505 | Metaphysics |
| PHIL 4535 | Philosophy of Mind |

## Additional Electives

Complete four additional electives in philosophy or religion. 16
Philosophy Seminar
Complete one of the following: 4

| PHIL 4500 | Theory of Knowledge |
| :--- | :--- |
| PHIL 4505 | Metaphysics |
| PHIL 4510 | Philosophy of Science |
| PHIL 4515 | Advanced Logic |
| PHIL 4535 | Philosophy of Mind |
| PHIL 4547 | Seminar: Apocalypticism |
| PHIL 4606 | Seminar: Theories and Methods in <br> Religious Studies |
| PHIL 4901 | Topics in Philosophy Seminar |
| PHIL 4902 | Great Philosophers Seminar |
| PHIL 4903 | Seminar in Religion |
| PHIL 5001 | Global Justice |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete the following: |  |  |
| PHIL 4525 | Philosophy of Social Science | 4 |
| or PHIL 5001 | Global Justice |  |

## Program Requirement

128 semester hours required

## Concentrations

## CONCENTRATION IN CAMPAIGNS AND ELECTIONS

## Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.
POLS $3160 \quad$ Campaign Strategy 4

POLS 4947 Campaign and Elections Practicum 4
Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours
Core Course

| POLS 3415 | Ethnic Political Violence | 4 |
| :---: | :--- | :--- |
| or POLS 3418 | Nationalism |  |

Electives
Complete three of the following:

| POLS 2336 | Politics and the Arts |  |
| :--- | :--- | :--- |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and |  |
| POLS 3320 | Transgender Issues in Public Policy |  |
| POLS 3324 | Law and Society |  |
| CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY |  |  |
| Code | Title | Hours |

Experiential/Practicum Requirement

| Complete one of the following: |  |
| :---: | :--- |
| POLS 4910 | Model United Nations |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |


| Core Courses |  |
| :--- | :--- |
| Complete three of the following: | 12 |

CONCENTRATION IN LAW AND LEGAL STUDIES
Code $\quad$ Title Hours

| Complete four of the following: |  |
| :---: | :--- |
| POLS 2330 | American Political Thought |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## CONCENTRATION IN PUBLIC POLICY

| Code <br> Core Requirement | Title | Hours |
| :--- | :--- | ---: |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: | 12 |  |
| POLS 2334 | Bureaucracy and Government <br> Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |


| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Sociology and Political Science, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).

## Sociology Requirements

## Code Title

Hours
Sociology Required Courses

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| SOCL 2300 | Social Theory | 4 |

Sociology Introductory Electives
Complete two courses in the following range: ..... 8
SOCL 1200 to SOCL 1999
Sociology Intermediate Elective
Complete one course in the following range: ..... 4
SOCL 2000 to SOCL 3999
Sociology Advanced Elective
Complete one course in the following range: ..... 4
SOCL 4000 to SOCL 5999
Statistics and Methods
Complete one of the following sets: ..... 8SOCL $2320 \quad$ Statistical Analysis in Sociology
and SOCL 2321 and Research Methods in Sociology
POLS 2400and POLS 2399 and Research Methods in Political

| Political Science Requirements |  |  |
| :--- | :--- | ---: |
| Code Title | Hours |  |
| Political Science Required Courses |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2330 | American Political Thought | 4 |

Political Science Electives
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3418 | Nationalism |

Political Science Upper Level Electives
Complete two courses in the following range:
POLS 3000 to POLS 5999
Political Science Electives
Complete two courses in the following range:
POLS 2300 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 802).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Public Policy


## Capstone Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one of the following: | 4 |  |
| SOCL 4600 | Senior Seminar |  |
| POLS 4701 | Political Science Senior Capstone |  |
| POLS 4703 | Senior Thesis |  |
| Integrative | Requirement | Hours |
| Code | Title | 4 |
| SOCL 4514 | "The Wire" and the Study of Urban | 4 |
| POLS 3324 | Inequalities | Law and Society |

## Program Requirement

128 total semester hours required

|  |  |
| :--- | ---: |
| Concentrations (Optional) |  |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |
| Code | Title |
| Complete four of the following: | 16 |
| POLS 2350 | State and Local Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |


| POLS 3305 | The American Presidency |  |
| :---: | :--- | :--- |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.
POLS $3160 \quad 4$
POLS 4947 Campaign and Elections Practicum 4

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Course |  |  |
| POLS 3415 | Ethnic Political Violence | 4 |
| or POLS 3418 | Nationalism |  |

Electives
Complete three of the following: 12

POLS 2336 Politics and the Arts
POLS 2360 Politics of Poverty
POLS 2368 Music and Politics
POLS 2370 Religion and Politics
POLS 2375 Gender and Politics
POLS 2380 Latino Politics in the United States
POLS 3309 Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy

POLS 3320 Politics and Mass Media
POLS 3324 Law and Society
CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |


| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Political Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Introduction to College

Complete "Introduction to College" for your major.

## Political Science Major Requirements

## Political Science Requirements

| POLS 1150 | American Government | 4 |
| :---: | :---: | :---: |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Capstone |  |  |
| POLS 4701 or POLS 4703 | Political Science Senior Capstone Senior Thesis | 4 |

Political Science Experiential Learning Requirement
Note: Up to two credit-bearing courses count toward political science electives.
Complete one course or experience from the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |


| POLS 4942 | Internship in Politics |
| :---: | :--- |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 | Community-Based Research Practicum |
| Co-op or Study Abroad |  |
| Complete one cooperative education experience or one study- |  |
| abroad experience. |  |

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete eight political science electives with a minimum of
six numbered 2000 or above.

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 803).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Major Credit Requirement <br> Complete 60 semester hours in the major.

## Upper-Division Electives

Note: Courses used as upper-division electives do not count toward the major or the NU Core.
Complete three general electives numbered 3000 or above.

## Program Requirements

128 total semester hours required

## Concentrations

CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS
Code Title Hours

Complete four of the following: 16

| POLS 2350 | State and Local Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title
Hours
Required Courses

| With advisor approval, a co-op or internship may be |
| :--- |
| substituted in place of POLS 4947. |
| POLS 3160 |
| POLS 4947 |$\quad$ Campaign Strategy $\quad 4$

CONCENTRATION IN COMPARATIVE POLITICS

| Code | Title | Hours |
| :---: | :---: | :---: |
| Theoretical Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of the following: |  | 8 |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia |  |
| POLS 3460 | Contemporary Government and Politics in Africa |  |
| POLS 3465 | Government and Politics in the Middle East |  |
| POLS 3475 | Government and Politics in Latin America |  |
| POLS 3480 | Government and Politics in Japan |  |
| POLS 3485 | China: Governance and Foreign Policy |  |

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4915 | Model Arab League |
| :--- | :--- |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4937 | Dialogue of Civilizations: Government <br> and Politics Abroad |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours

| Core Course |  | 4 |
| :---: | :--- | :--- |
| POLS 3415 | Ethnic Political Violence |  |
| or POLS 3418 | Nationalism |  |


| Electives |  |
| :--- | :--- |
| Complete three of the following: | 12 |
| POLS $2333 \quad$ Politics and Film |  |


| POLS 2336 | Politics and the Arts |
| :--- | :--- |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

## CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY

Code Title Hours

## Experiential/Practicum Requirement

Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |


| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

CONCENTRATION IN SECURITY STUDIES
Code Title Hours
Complete four of the following: 16

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

Plan of Study
Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1155 | 4 POLS 1150 | 4 Vacation | 0 Vacation | 0 |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| Elective | 4 MATH 1215 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| POLS 1000 | 1 POLS 1160 | 4 |  | 0 |
| ENGW 1111 | 4 POLS 1161 | 0 | 0 |  |
|  | 17 | 16 |  |  |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 2399 | 4 POLS 2400 | 4 Vacation | 0 Co-op | 0 |
| POLS <br> intermediate/ <br> advanced <br> undergraduat, <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 POLS <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |
| EESH 2000 | 1 EESH 2000 | 1 | 17 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Political theory course | 4 POLS intermediate/ advanced undergraduate elective | 4 Co-op | 0 |
|  | POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 Elective | 4 |  |
|  | Elective | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3315 | 4 Upper <br> division <br> elective | 4 Co-op | 0 |
| POLS <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 POLS <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 |  |  |
| Upper <br> division <br> elective | 4 | 8 | 0 |  |
| Elective | 4 | 16 | 8 |  |
| 0 |  |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 POLS 4701 | 4 |
|  | POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 |
| Upper <br> divison <br> elective | 4 |  |
|  | Elective | 4 |
| 0 | 16 |  |
| Total Hours. 131 |  |  |

Total Hours: 131

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1155 | 4 POLS 1150 | 4 Vacation | 0 Vacation | 0 |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| Elective | 4 MATH 1215 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| POLS 1000 | 1 POLS 1160 | 4 |  | 0 |
| ENGW 1111 | 4 POLS 1161 | 0 |  |  |
|  | 17 | 16 | 0 | 0 |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 2399 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Elective | 4 |  | Elective | 4 |
| POLS <br> intermediate/ <br> advanced <br> undergraduate <br> elective | 4 |  |  |  |
| POLS <br> intermediate/ <br> advanced <br> undergraduat <br> elective | 4 |  |  |  |
| EESH 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |
| :--- | :---: | :---: | :---: | ---: | Hours

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| POLS intermediate/ advanced undergraduat elective | 4 |  |  |  |
| Upper division elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| POLS <br> intermediate/ <br> advanced | 4 POLS 4701 | 4 |
| undergraduate <br> elective | 4 POLS |  |
| POLS <br> intermediate/ <br> intermediate/ <br> advanced <br> undergraduat <br> elective | advanced <br> undergraduat। <br> elective | 4 |
| Upper <br> division <br> elective | 4 Upper <br> divison <br> elective | 4 |
| Elective | 4 Elective | 4 |

Total Hours: 130

## Biology and Political Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Biology Major Requirements

| Code | Title | Hours |
| :---: | :---: | :---: |
| Introduction to College |  |  |
| $\begin{aligned} & \text { BIOL } 1000 \\ & \text { or POLS } 1000 \end{aligned}$ | Biology at Northeastern <br> Political Science at Northeastern | 1 |
| Biology |  |  |
| Foundations |  |  |
| BIOL 1107 and BIOL 1108 | Foundations of Biology and Lab for BIOL 1107 | 5 |
| Inquiries |  |  |
| BIOL 2299 | Inquiries in Biological Sciences | 4 |
| Genetics |  |  |
| $\begin{aligned} & \text { BIOL } 2301 \\ & \text { and BIOL } 2302 \end{aligned}$ | Genetics and Molecular Biology and Lab for BIOL 2301 | 5 |
| Techniques |  |  |
| BIOL 2309 | Techniques in Biology: An InquiryBased Lab | 4 |
| Biochemistry |  |  |
| $\begin{aligned} & \text { BIOL } 2323 \\ & \text { and BIOL } 2324 \end{aligned}$ |  | 5 |
| Organismal and Population Biology |  |  |
| Complete one of | following: | 4-5 |


| BIOL 2321 <br> and BIOL 2322 | Microbiology <br> and Lab for BIOL 2321 |
| :--- | :--- |
| BIOL 2327 | Human Parasitology |
| EEMB 2302 <br> and EEMB 2303 | Ecology <br> and Lab for EEMB 2302 |
| EEMB 2400 | Introduction to Evolution |
| EEMB 2616 <br> and EEMB 2617 | Invertebrate Zoology <br> and Lab for EEMB 2616 |
| EEMB 2618 <br> and EEMB 2619 | Vertebrate Zoology <br> and Lab for EEMB 2618 |
| EEMB 2700 <br> and EEMB 2701 | Marine Biology <br> and Lab for EEMB 2700 |
| Mathematics | Calculus and Differential Equations for <br> MATH 1251 |

## Chemistry

General Chemistry

| CHEM 1211 and CHEM 1212 | General Chemistry 1 and Lab for CHEM 1211 | 5 |
| :---: | :---: | :---: |
| CHEM 1214 and CHEM 1215 | General Chemistry 2 and Lab for CHEM 1214 | 5 |
| Organic Chemistry |  |  |
| CHEM 2311 and CHEM 2312 | Organic Chemistry 1 and Lab for CHEM 2311 | 5 |
| CHEM 2313 and CHEM 2314 | Organic Chemistry 2 and Lab for CHEM 2313 | 5 |
| Physics |  |  |
| PHYS 1145 and PHYS 1146 | Physics for Life Sciences 1 and Lab for PHYS 1145 | 5 |
| PHYS 1147 and PHYS 1148 | Physics for Life Sciences 2 and Lab for PHYS 1147 | 5 |


| Code Title | Hours |
| :---: | :---: |
| Core Courses in Political Science |  |
| POLS 1150 American Government | 4 |
| POLS 1155 Comparative Politics | 4 |
| POLS 1160 International Relations | 4 |
| Statistics |  |
| Complete one of the following: | 4-5 |
| POLS 2400 Quantitative Techniques |  |
| ENVR 2500 Biostatistics <br> and ENVR 2501 and Lab for ENVR 2500 |  |

## Political Thought

Complete one of the following: 4

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Upper-Division Electives
Complete four of the following:

| POLS 2340 | Business and Government |
| :--- | :--- |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 2399 | Research Methods in Political Science |
| POLS 3309 | Lesbian, Gay, Bisexual, and <br>  <br> Transgender Issues in Public Policy |
| POLS 3324 3409 | Law and Society |
| POLS 3412 | Hobal Governance |
| POLS 3410 | Nontraditional Security Issues |

## Political Science Elective

Complete one additional course in political science numbered 4
2300 or above.

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. ).

- Law and Legal Studies
- Public Policy


## - Security Studies

## Integrative Course

Note: Science, Technology, and Public Policy (POLS 2390) cannot be used both as an integrative course and as an elective above.

| Code | Title | Hours |
| :--- | :--- | ---: |
| POLS 2390 | Science, Technology, and Public Policy | 4 |
| or POLS 2395 | Environmental Politics and Policy |  |

## Program Requirement

128 total semester hours required

| Concentrations |
| :--- |
| CONCENTRATION IN LAW AND LEGAL STUDIES |
| Code <br> Complete four of the following: |
| POLS 2330 American Political Thought Hours <br> POLS 3300 The U.S. Congress 16 <br> POLS 3302 Judicial Process and Behavior  <br> POLS 3324 Law and Society  <br> POLS 3406 International Law  <br> POLS 4500 U.S. Constitutional Law  <br> POLS 4505 U.S. Civil Liberties  |

CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |

POLS 2385 U.S. Health and Welfare Policy
POLS 2390 Science, Technology, and Public Policy
POLS 2395 Environmental Politics and Policy
POLS 3315 Interest Groups and Public Policy
POLS 3402 Survey Research and Polling
POLS 3410 Nontraditional Security Issues
POLS 3412 Homeland Security Policy and Politics
POLS $3425 \quad$ U.S. Foreign Policy
POLS 4948 Community-Based Research Practicum
CONCENTRATION IN SECURITY STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 3408 | International Security |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |


| POLS 3420 | U.S. National Security Policy |
| :--- | :--- |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

## Criminal Justice and Political Science, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Criminal Justice Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Criminal Justice Core Requirements |  |  |
| CRIM 1100 | Introduction to Criminal Justice | 4 |
| CRIM 2100 | Criminal Due Process | 4 |
| CRIM 2200 | Criminology | 4 |
| Thematic Electives |  |  |
| Complete one of the following: |  | 4 |
| CRIM 1300 | The Death Penalty |  |
| CRIM 1400 | Human Trafficking |  |
| CRIM 1500 | Corruption, Integrity, and Accountability |  |
| CRIM 1600 | Crimes against Humanity |  |
| CRIM 1700 | Crime, Media, and Politics |  |
| Survey Elective |  |  |
| Complete one of the fo | following: | 4 |
| CRIM 3010 to CRIM | M 3500 |  |
| CRIM 3900 | Topics in Criminal Justice and Criminology |  |


| System-Wide Elective |  |
| :--- | :--- |
| Complete one of the following: |  |
| CRIM 4010 | Gender, Crime, and Justice |
| CRIM 4020 | Race, Crime, and Justice |
| CRIM 4030 | Criminal Justice Organization and <br> Management |


| Computer Science |  |
| :--- | :--- |
| CS 1100 | Computer Science and Its Applications |

Mathematics
Complete one of the following:

| MATH 1215 | Mathematical Thinking |
| :--- | :--- |
| MATH 1231 | Calculus for Business and Economics |

MATH 1241
Calculus 1

| Political Science Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

## Research Methods and Electives

Complete option A, option B, or option C, below. Note: These options enable the student to take research methods courses (including statistics/quantitative techniques) as either CRIM courses or as POLS courses.

| Code | Title | Hours |
| :---: | :---: | :---: |
| Option A |  |  |
| Research Methods |  |  |
| CRIM 3600 | Criminal Justice Research Methods | 4 |
| CRIM 3700 | Criminal Justice Statistics | 4 |
| Criminal Justice Electives |  |  |
| Complete two courses in the following range: |  | 8 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complete five courses in the following: |  | 20 |
| POLS 2300 to POLS 5999 |  |  |
| Option B |  |  |
| Research Methods |  |  |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Criminal Justice Electives |  |  |
| Complete three courses in the following: |  | 12 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complete four courses in the following: |  | 20 |
| POLS 2300 to POLS 5999 |  |  |
| Option C |  |  |
| Research Methods |  |  |
| Complete one of the following sequences: |  | 8 |
| CRIM 3600 <br> and POLS 2400 | Criminal Justice Research Methods and Quantitative Techniques |  |
| CRIM 3700 and POLS 2399 | Criminal Justice Statistics and Research Methods in Political Science |  |
| Criminal Justice Electives |  |  |
| Complete two courses from the following range: |  | 8 |
| CRIM 4001 to CRIM 4999 |  |  |
| Political Science Electives |  |  |
| Complte four cours | in the following: | 20 |

POLS 2300 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 809).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Security Studies

| Integrative Requirement |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Senior Capstone Requirement |  |  |
| CRIM 4949 or POLS 4701 | Senior Capstone Seminar <br> Political Science Senior Capstone | 4 |
| Due Process |  |  |
| CRIM 2100 | Criminal Due Process | 4 |
| Integrative Elective Courses |  |  |
| Complete two of | following: | 8 |
| CRIM 3100 | Criminal Law |  |
| CRIM 4100 | Juvenile Law |  |
| CRIM 4110 | Legal Philosophy |  |
| CRIM 4120 | Courts and Sentencing |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four | following: | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Cour |  |  |

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code <br> Core Course | Title | Hours |
| :--- | :--- | ---: |
| POLS 3415 <br> or POLS 3418 | Ethnic Political Violence | Nationalism |$\quad 4$

## CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

CONCENTRATION IN SECURITY STUDIES
Code Title Hours

Complete four of the following: 16

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |


| POLS 3427 | Civil-Military Relations |
| :--- | :--- |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

## Political Science and Business Administration, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).
Political Science Major Requirements

| Code | Title |
| :--- | :--- | :--- |
| Introduction to College |  |$\quad$ Hours

## Political Science Restricted Electives

Complete two of the following:

## 8

| POLS 3307 | Public Policy and Administration |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 3405 | International Political Economy |
| POLS 3487 | Politics of Developing Nations |

Political Science Electives
Complete two courses in the following range, or complete a

Political Science concentration as outlined below:
POLS 3300 to POLS 5999

## Statistics

POLS 2400
Quantitative Techniques
or MGSC 2301
Business Statistics

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 811).

- American Political Institutions
- Identity, Culture, and Politics
- Law and Legal Studies


## Business Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Accounting |  |  |
| ACCT 1201 | Financial Accounting and Reporting | 4 |
| ACCT 2301 | Managerial Accounting | 4 |
| Finance |  | 4 |
| FINA 2201 | Financial Management | 4 |
| Marketing |  | 4 |
| MKTG 2201 | Introduction to Marketing | 4 |
| Organizational Behavior |  |  |
| ORGB 3201 | Organizational Behavior |  |

## Additional Requirements

Code Title Hours
Mathematics
$\left.\begin{array}{|lll}\hline \begin{array}{c}\text { MATH 1231 } \\ \text { or MATH 1341 }\end{array} & \begin{array}{l}\text { Calculus for Business and Economics } \\ \text { Calculus } 1 \text { for Science and Engineering }\end{array} & 4 \\ \hline \text { Economics } & & 4 \\ \text { ECON 1115 } \\ \text { or ECON 1116 }\end{array} \quad \begin{array}{l}\text { Principles of Macroeconomics } \\ \text { Principles of Microeconomics }\end{array}\right]$

Capstone Requirement

| POLS 4701 | Political Science Senior Capstone | 4 |
| :---: | :--- | :--- |
| or STRT 4501 | Strategy in Action |  |

## Business Concentration

Complete one of the following business concentrations. Requirements for the concentrations are listed below (p. 811).

- Accounting
- Entrepreneurship and Innovation
- Finance
- Management
- Management Information Systems
- Marketing
- Supply Chain Management


## Business Cooperative Education Requirement

Complete one six-month co-op experience.

## Political Science GPA Requirement

Minimum 2.000 GPA required in all political science courses

## Business GPA Requirement

Minimum 2.000 GPA required in business courses

## Program Requirement

128 total semester hours required

| Business Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN ACCOUNTING |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| ACCT 3401 | Financial Reporting and Analysis 1 | 4 |
| ACCT 4501 | Financial Reporting and Analysis 2 | 4 |
| Electives |  |  |
| Complete two of | llowing: | 8 |
| 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
Code Title
Note: The following courses do not count toward this concentration:

| ENTR 1201 | The Entrepreneurial Universe |
| :--- | :--- |
| ENTR 3308 | Business Economic History of South <br> Africa |
| ENTR 3318 | Business, Economics, and History of <br> Hispaniola and Latin America |
| ENTR 3328 | Field Research in Sustainable Business |
| ENTR 3338 | Field Research in Sustainable Energy in <br> Iceland |
| ENTR 3346 | Family Business in Italy |
| ENTR 4510 | New Venture Laboratory Abroad |
| ENTR 4514 | Development Practice and Global <br> Citizenship in India |
| Introductory Course | Innovation! |
| ENTR 2301 | Entrepreneurial Marketing and Selling |
| or ENTR 2303 |  |
| Capstone Course |  |
| Complete one of the following: |  |


| ENTR 4501 | Business Planning for Technology <br> Ventures |
| :--- | :--- |
| ENTR 4503 | Business Planning for Small and <br> Medium Enterprises |
| ENTR 4506 | Advanced Studies in Social Enterprise |

## Electives

Complete two of the following:
ENTR 2206 Global Social Enterprise
ENTR 2215 Understanding Family Enterprise
ENTR 2414 Social Responsibility of Business in an Age of Inequality
ENTR 3210 Social Impact Investing: Connecting Compassion and Capital
ENTR 3212 Innovation for Social Change

| ENTR 3217 | Global Family Business Leadership |
| :---: | :---: |
| ENTR 3219 | Microfinance: Fostering <br> Entrepreneurship in the Developing <br> World |
| ENTR 3220 | International Entrepreneurship and Innovation |
| ENTR 3305 | Business Modeling for Entrepreneurs |
| ENTR 3306 | Global Entrepreneurship |
| ENTR 3316 | Microfinance and Economic Development in Latin America |
| ENTR 3320 | Base of Pyramid Innovation |
| ENTR 3326 | Sustainability in the Latin American Business Environment |
| ENTR 3330 | Lean Design and Development for Entrepreneurs |
| ENTR 3336 | Resource Management and Renewable Energy in Iceland |
| ENTR 3348 | Family Business: A Global Perspective |
| ENTR 3401 | Management of Operations and Growth in Small- and Medium-Sized Enterprises |
| ENTR 3403 | Managing Operations in a TechnologyBased Startup Firm |
| ENTR 3410 | Entrepreneurship and Intrapraneurship in Innovation-Driven Markets |
| ENTR 3520 | Impact Investing and Social Finance |
| ENTR 4225 | Corporate Entrepreneurship through Global Growth, Acquisitions, and Alliances |
| ENTR 4512 | Social Entrepreneurship and Sustainable Development in India |
| FINA 4610 | Entrepreneurial Finance, Innovation Valuation, and Private Equity |

CONCENTRATION IN FINANCE
Code Title Hours
Code Title

Required Course

| FINA 3301 | Corporate Finance | 4 |
| :---: | :--- | :--- |
| or FINA 3303 | Investments |  |

Electives
Complete three of the following: 12

| ENTR 3520 | Impact Investing and Social Finance |
| :---: | :--- |
| or FINA 2720 | Sustainability in the Business Environment |
| FINA 3301 | Corporate Finance (if not selected as a <br> required course) |

FINA 3303 Investments (if not selected as a required course)
FINA $4310 \quad$ Working Capital Management
FINA 4312 Issues in Corporate Governance
FINA 4320 International Financial Management
FINA $4410 \quad$ Valuation and Value Creation
FINA $4412 \quad$ Personal Financial Planning
FINA $4420 \quad$ Mergers and Acquisitions
FINA 4512 Financial Risk Management
FINA 4514 Investment Banking
FINA 4516 Real Estate Finance
FINA 4518 Risk Management and Insurance
FINA 4524 Credit Analysis

| FINA 4526 | Core Topics in Alternative Investments |
| :--- | :--- |
| FINA 4983 | Special Topics in Finance |
| FINA 4602 | Turnaround Management |
| FINA 4604 | Fixed-Income Securities |
| FINA 4608 | Advanced Financial Strategy |
| FINA 4610 | Entrepreneurial Finance, Innovation <br> Valuation, and Private Equity |

## CONCENTRATION IN MANAGEMENT



| Code | Title | Hours |
| :---: | :---: | :---: |
| Required Courses |  |  |
| MISM 3403 | Data Management in the Enterprise | 4 |
| MISM 4501 | Business Systems Integration | 4 |
| Electives |  |  |
| Note: Only one non-MISM course may be used as an elective. |  |  |
| Complete two | following: | 8 |
| MISM 3305 | Information Resource Management |  |
| MISM 3404 | Data Communications |  |
| MISM 3406 | Introduction to Web Design, Practices, and Standards |  |
| MISM 3515 | Data Mining for Business |  |
| MISM 4512 | Special Topics in Information Technology Management |  |
| ACCT 3403 | Accounting Information Systems |  |
| MKTG 4508 | Digital Marketing |  |
| SCHM 3301 | Global Supply Chain Strategy |  |
| SCHM 3305 | Sourcing and Procurement |  |
| SCHM 3308 | Supply Chain Analytics |  |

CONCENTRATION IN MARKETING
Code Title Hours

## Required Courses

MKTG 3301 Marketing Management 4

| MKTG $3401 \quad$ Marketing Research | 4 |
| :--- | :---: |
| Electives | 8 |


| MKTG 2301 | Marketing and Society |
| :--- | :--- |
| MKTG 3501 | Marketing Analytics |
| MKTG 4310 | Retailing |
| MKTG 4420 4502 | Sales Management |
| MKTG 4504 | Marketing in the Service Sector |
| MKTG 4506 | Consumer Behavior |
| MKTG 4508 | Digital Marketing |
| MKTG 4510 | New Product Development |
| MKTG 4512 | International Marketing |

CONCENTRATION IN SUPPLY CHAIN MANAGEMENT
Code $\quad$ Title Hours

| Code Title | Hours |
| :--- | :--- |
| Required Courses |  |


| SCHM 3301 | Global Supply Chain Strategy | 4 |
| :--- | :--- | :--- |
| SCHM 3305 | Sourcing and Procurement | 4 |
| SCHM 3310 | Logistics and Transportation | 4 |

Elective

| Complete one of the following: |  |
| :--- | :--- |
| SCHM 3308 | Supply Chain Analytics |
| SCHM 3320 | Demand Planning and Forecasting |
| SCHM 3330 | Sustainability and Supply Chain <br> Management |
| SCHM 4401 | Advanced Problems in Supply Chain <br> Management |

## Political Science Concentrations (Optional)

CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS
Code Title Hours
Complete four of the following: 16

| POLS 2350 | State and Local Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |

## CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS Code Hours

| Code <br> Core Course | Title | Hours |
| :--- | :--- | ---: |
| POLS 3415 |  |  |
| or POLS 3418 | Ethnic Political Violence | 4 |

Electives
Complete three of the following:
POLS 2333 Politics and Film

POLS 2336 Politics and the Arts
POLS $2360 \quad$ Politics of Poverty

| POLS 2368 | Music and Politics |  |
| :---: | :---: | :---: |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3324 | Law and Society |  |
| CONCENTRATION IN LAW AND LEGAL STUDIES |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## Political Science and Communication Studies, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Political Science Major Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Courses in Political Science |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Thought |  | 4 |
| Complete one of the following: |  |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2330 | American Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

Political Science Upper-Division Electives
Complete two courses from the following range: 8

## POLS 3300 to POLS 5999

## Political Science Electives

Complete two courses from the following range:
POLS 2000 to POLS 5999

| Methodology |  | Research Methods in Political Science |
| :--- | :--- | :--- |
| POLS 2399 | Communication Research Methods | 4 |
| or COMM 2301 | Com |  |

## Political Science Concentration (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 814).

- American Political Institutions
- Campaigns and Elections
- Identity, Culture, and Politics
- Law and Legal Studies
- Public Policy


## Communication Studies Courses

Code Title Hours

Core Courses in Political Communication
COMM 1101 Introduction to Communication Studies 4
COMM 1112 Public Speaking 4
COMM $1210 \quad$ Persuasion and Rhetoric 4

Communication Studies Electives
Complete six of the following: 24

| COMM 1231 | Principles of Organizational Communication |
| :---: | :---: |
| COMM 1310 | Classical Foundations of Communication |
| COMM 1331 | Legal Argumentation, Advocacy, and Citizenship |
| COMM 1412 | Social Movement Communication |
| COMM 1414 | Great Speakers and Speeches 1, 16301930 |
| COMM 2301 | Communication Research Methods |
| COMM 2303 | Global and Intercultural Communication |
| COMM 2501 | Communication Law |
| COMM 2551 | Free Speech in Cyberspace |
| COMM 3201 | Health Communication |
| COMM 3304 | Communication and Inclusion |
| COMM 3331 | Argumentation and Debate |
| COMM 3409 | Advocacy Writing |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |
| COMM 3415 | Communication Criticism |
| COMM 3451 | Advertising Practices |
| COMM 3501 | Free Speech: Law and Practice |
| COMM 3500 | Environmental Issues, Communication, and the Media |
| COMM 3532 | Theories of Conflict and Negotiation |
| COMM 3610 | Communication, Politics, and Social Change |
| COMM 4102 | Health Communication Campaigns |
| COMM 4533 | Consultation Skills |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |


| COMM 4631 | Crisis Communication and Image <br> Management |
| :--- | :--- |
| COMM 4901 | Seminar in Communications |
| COMM 4918 | Special Topics in Communication <br> Studies |
| COMM 4992 | Directed Study |
| COMM 4994 | Internship in Communication |

## Integrative Requirements

| Code <br> Integrative Courses | Title | Hours |
| :--- | :--- | ---: |
| POLS 3320 | Politics and Mass Media | 4 |
| or COMM 3320 | Political Communication | 4 |
| POLS 2333 | Politics and Film | 4 |

## Capstone Requirement

Complete one of the following. This course also counts 4
toward the political science or communication studies
elective requirement:

| COMM 4102 | Health Communication Campaigns |
| :--- | :--- |
| COMM 4530 | Communication and Quality of Life |
| COMM 4533 | Consultation Skills |
| COMM 4534 | Organizational Communication Training <br> and Development |
| COMM 4602 | Contemporary Rhetorical Theory |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Political Science and Communication Studies CombinedMajor Credit Requirement

Complete 72 semester hours in the major.

## Program Requirements

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four | following: | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.

Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours

Core Course
POLS $3415 \quad$ Ethnic Political Violence 4
or POLS $3418 \quad$ Nationalism
Electives
Complete three of the following: 12

| POLS 2333 | Politics and Film |
| :--- | :--- |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

CONCENTRATION IN LAW AND LEGAL STUDIES

| Code |
| :--- |
| Complete four of the following: |


| POLS 2330 | American Political Thought | 16 |
| :--- | :--- | ---: |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## CONCENTRATION IN PUBLIC POLICY

Code Title Hours

Core Requirement
POLS 3307 Public Policy and Administration 4
Electives
Complete three of the following:
12
POLS 2334 Bureaucracy and Government Organizations
POLS $2335 \quad$ Budgeting and Taxation
POLS 2340 Business and Government

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Political Science and Economics, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Political Science Major Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Political Science Requirements |  |  |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

## Political Science Restricted Electives

Complete two of the following:

| POLS 3307 | Public Policy and Administration |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2360 | Politics of Poverty |
| POLS 3405 | International Political Economy |
| POLS 3487 | Politics of Developing Nations |
| Political Science Electives |  |

Complete two courses from the following range, or complete a concentration as outlined below:

```
POLS 3300 to POLS 5999
```


## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 816).

- American Political Institutions
- Campaigns and Elections
- International Relations and Diplomacy
- Public Policy


## Economics Major Requirements for BS

Code Title Hours

Breadth Courses

| MATH 1231 | Calculus for Business and Economics | 4 |
| :--- | :--- | :--- |
| CS 1100 | Computer Science and Its Applications | 4 |

## Required Economics Courses

Grades in the required economics courses and in Quantitative
Techniques (POLS 2400) or Statistics (ECON 2350) must
average a minimum of 2.000 :

| ECON 1115 | Principles of Macroeconomics | 4 |
| :--- | :--- | :--- |
| ECON 1116 | Principles of Microeconomics | 4 |
| ECON 2315 | Macroeconomic Theory | 4 |
| ECON 2316 | Microeconomic Theory | 4 |
| ECON 3560 | Applied Econometrics | 4 |

Economics Electives
Complete three of the following. At least one course must be 12
numbered ECON 3000 or above:

| ECON 1230 | Healthcare and Medical Economics |
| :--- | :--- |
| ECON 1240 | Economics of Crime |
| ECON 1260 | Contested Issues in the U.S. Economy |
| ECON 1270 | Economic Status of Ethnic Minorities |
| ECON 1290 | History of the Global Economy |
| ECON 3404 | International Food Economics and |
| PCON 3415 | Poverty and Income |
| ECON 3420 | Urban Economic Issues |
| ECON 3423 | Environmental Economics |
| ECON 3424 | Law and Economics |
| ECON 3425 | Energy Economics |
| ECON 3440 | Public Finance |
| ECON 3461 | Government and Business |
| ECON 3490 | Public Choice Economics |
| ECON 4634 | Comparative Economics |
| ECON 4635 | International Economics |

## Integrative Requirements

Code Title Hours

Senior Seminar/Capstone
Complete one of the following:

| ECON 4692 | Senior Economics Seminar |
| :--- | :--- |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Quantitative Techniques/Statistics

Complete either of the statistics and departmental elective combinations listed below:

| Code | Title | Hours |
| :---: | :---: | :---: |
| Combination A |  |  |
| Statistics |  |  |
| POLS 2400 | Quantitative Techniques | 4 |
| Economics |  |  |
| Complete one of the following: |  | 4 |
| ECON 3404 | International Food Economics and Policy |  |
| ECON 3415 | Poverty and Income |  |
| ECON 3420 | Urban Economic Issues |  |
| ECON 3423 | Environmental Economics |  |
| ECON 3425 | Energy Economics |  |
| ECON 3440 | Public Finance |  |
| ECON 3461 | Government and Business |  |
| ECON 3490 | Public Choice Economics |  |
| ECON 4634 | Comparative Economics |  |
| ECON 4635 | International Economics |  |
| Code | Title | Hours |


| Combination B |  |
| :--- | :--- |
| Statistics | 4 |
| ECON 2350 Statistics | 4 |
| Political Science | 4 |
| Complete one course from the following range: |  |
| POLS 2401 to POLS 5999 |  |

## Program Requirement

128 total semester hours required

## Concentrations



## CONCENTRATION IN CAMPAIGNS AND ELECTIONS Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an
additional elective must be taken.
Complete two of the following:

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

$\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title } & \\ \text { Hours }\end{array}$
Experiential/Practicum Requirement
Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| Core Courses |  |
| Complete three of the following: |  |


| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |

POLS 2334 Bureaucracy and Government Organizations
POLS 2335 Budgeting and Taxation
POLS 2340 Business and Government
POLS 2345 Urban Policies and Politics
POLS 2350 State and Local Politics
POLS 2357 Growth and Decline of Cities and Suburbs
POLS 2385 U.S. Health and Welfare Policy POLS 2390 Science, Technology, and Public Policy
POLS 2395 Environmental Politics and Policy
POLS 3315 Interest Groups and Public Policy
POLS 3402 Survey Research and Polling
POLS $3410 \quad$ Nontraditional Security Issues
POLS 3412 Homeland Security Policy and Politics
POLS 3425 U.S. Foreign Policy

POLS 4948
Community-Based Research Practicum

## Plan of Study

Four Years, No Co-op
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 1111 | 4 MATH 1231 | 4 Vacation | 0 Vacation | 0 |
| POLS 1155 | 4 POLS 1150 | 4 |  |  |
| POLS 1156 | 0 POLS 1151 | 0 |  |  |
| ECON 1115 | 4 CS 1100 | 4 |  |  |
| Elective | 4 ECON 1116 | 4 | 0 | 0 |
|  | 16 | 16 |  |  |


| Year 2 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| POLS 1160 | 4 POLS 2400 | 4 Vacation | 0 Vacation | 0 |
| POLS 1161 | 0 ECON 2315 | 4 |  |  |
| ECON <br> undergraduate <br> elective | 4 <br> undergraduate <br> elective | 4 |  |  |
| POLS <br> undergraduat: <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 | 16 | 0 | 0 |

## Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Elective | 4 Vacation | 0 Vacation | 0 |
| POLS 2326 | 4 POLS <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 |  |  |
| ECON 2316 4 Elective | 4 |  |  |  |
| ECON <br> undergraduat <br> elective | 4 Elective | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| ECON 3560 | 4 POLS 4701 | 4 |
| POLS <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 ECON <br> intermediate/ <br> advanced <br> undergraduatı <br> elective | 4 |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Political Science and Philosophy, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond
specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Political Science Requirements

Code Title Hours

## Core Courses in Political Science

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |

Political Thought/Theory
Complete two of the following:
8

| POLS 2326 | Premodern Political Thought |
| :--- | :--- |
| POLS 2328 | Modern Political Thought |
| POLS 2330 | American Political Thought |
| POLS 2332 | Contemporary Political Thought |

Political Science Upper-Division Electives
Complete two courses in the following range: 8 POLS 3000 to POLS 5999
Political Science Electives
Complete two courses in the following range:
8
POLS 2000 to POLS 5999

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 818).

- Campaigns and Elections
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy


## Philosophy Requirements

Code Title

Hours
Philosophy Required Courses

| PHIL 1115 | Introduction to Logic | 4 |
| :---: | :--- | :---: |
| or PHIL 1215 | Symbolic Logic |  |
| PHIL 2325 | Ancient Philosophy and Political | 4 |
| or POLS 2325 | Thought | Ancient Philosophy and Political Thought |
| PHIL 2330 | Modern Philosophy | 4 |

Advanced Philosophy Elective
Complete one of the following: 4

| PHIL 3435 | Moral Philosophy |
| :--- | :--- |
| PHIL 3436 | History of Modern Moral Philosophy |
| PHIL 4500 | Theory of Knowledge |


| PHIL 4505 | Metaphysics |  |
| :---: | :---: | :---: |
| PHIL 4535 | Philosophy of Mind |  |
| Additional Electives |  |  |
| Complete four additional electives in philosophy or religion. |  | 16 |
| Philosophy Seminar |  |  |
| Complete one of the following: |  | 4 |
| PHIL 4500 | Theory of Knowledge |  |
| PHIL 4505 | Metaphysics |  |
| PHIL 4510 | Philosophy of Science |  |
| PHIL 4515 | Advanced Logic |  |
| PHIL 4535 | Philosophy of Mind |  |
| PHIL 4547 | Seminar: Apocalypticism |  |
| PHIL 4606 | Seminar: Theories and Methods in Religious Studies |  |
| PHIL 4901 | Topics in Philosophy Seminar |  |
| PHIL 4902 | Great Philosophers Seminar |  |
| PHIL 4903 | Seminar in Religion |  |
| PHIL 5001 | Global Justice |  |

Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete the following: |  |  |
| PHIL 4525 Philosophy of Social Science <br> or PHIL 5001 Global Justice | 4 |  |

## Program Requirement

128 semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |
| Campaigns and Elections Electives |  |  |
| If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken. |  |  |
| Complete two of the following: |  | 8 |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3304 | Presidential Nominating Process |  |
| CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS |  |  |
| Code | Title | Hours |
| Core Course |  |  |
| POLS 3415 or POLS 3418 | Ethnic Political Violence <br> Nationalism | 4 |

## Electives

| Complete three of the following: |  |
| :--- | :--- |
| POLS 2333 | Politics and Film |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and <br>  <br> POLS 3ransgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |

Code Title Hours

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |


| Core Courses |  |
| :--- | :--- |
| Complete three of the following: | 12 |


| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN LAW AND LEGAL STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |

## CONCENTRATION IN PUBLIC POLICY

Code Title Hours

Core Requirement
POLS 3307 Public Policy and Administration 4

Electives
Complete three of the following:

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |


| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |
| POLS 2395 | Environmental Politics and Policy |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

## Political Science, BA/MA

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Introduction to College

Complete "Introduction to College" for your major.
Political Science Major Requirements

| Political Science Requirements |  |  |
| :--- | :--- | :--- |
| POLS 1150 | American Government | 4 |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |

## Political Theory

Complete one of the following:
POLS 2330 American Political Thought

POLS 2326 Premodern Political Thought

| POLS 2328 | Modern Political Thought |
| :--- | :--- |
| POLS 2332 | Contemporary Political Thought |

Political Science Capstone
Complete one of the following:

| POLS 4701 | Political Science Senior Capstone |
| :---: | :--- |
| POLS 4703 | Senior Thesis |

## Political Science Experiential Learning Requirement

Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

## Courses

| Complete one of the following: |
| :--- |
| POLS 4910 Model United Nations <br> POLS 4915 Model Arab League <br> POLS 4917 Model European Union <br> POLS 4918 Model NATO <br> POLS 4942 Internship in Politics <br> POLS 4944 Student Leadership Practicum <br> POLS 4948 Community-Based Research Practicum <br> Co-op or Study Abroad  <br> Complete one cooperative education experience or one study-  <br> abroad experience. 4 |

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete six political science electives with a minimum of

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 819).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture, and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Major Credit Requirement

Complete 52 semester hours in the major.


## Program Requirements

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |
| Campaigns and Elections Electives |  |  |
| If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken. |  |  |
| Complete two of the following: |  | 8 |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3304 | Presidential Nominating Process |  |
| CONCENTRATION IN COMPARATIVE POLITICS |  |  |
| Code | Title | Hours |
| Theoretical Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of the following: |  | 8 |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia |  |
| POLS 3460 | Contemporary Government and Politics in Africa |  |
| POLS 3465 | Government and Politics in the Middle East |  |
| POLS 3475 | Government and Politics in Latin America |  |


| POLS 3480 | Government and Politics in Japan |
| :---: | :--- |
| POLS 3485 | China: Governance and Foreign Policy |
| Experiential/Practicum Requirement |  |
| Complete one of the following: |  |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4937 | Dialogue of Civilizations: Government <br> and Politics Abroad |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours

Core Course
POLS 3415 Ethnic Political Violence 4
or POLS $3418 \quad$ Nationalism

Electives

| Complete three of the following: |  |
| :--- | :--- |
| POLS 2333 | Politics and Film |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
| POLS 3320 | Transgender Issues in Public Policy |
| POLS 3324 | Law and Society |

$\begin{array}{lll}\text { CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY } \\ \text { Code } & \text { Title Hours }\end{array}$
Experiential/Practicum Requirement
Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

CONCENTRATION IN LAW AND LEGAL STUDIES
Code $\quad$ Title Hours
Complete four of the following: 16
POLS 2330 American Political Thought
POLS 3300 The U.S. Congress

| POLS 3302 | Judicial Process and Behavior |
| :--- | :--- |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |


| CONCENTRATION IN PUBLIC POLICY <br> Code <br> Core Requirement | Title | Hours |
| :--- | :--- | ---: |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  | 12 |
| Complete three of the following: |  |  |


| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |

POLS 2385 U.S. Health and Welfare Policy
POLS 2390 Science, Technology, and Public Policy
POLS 2395 Environmental Politics and Policy
POLS 3315 Interest Groups and Public Policy
POLS 3402 Survey Research and Polling
POLS 3410 Nontraditional Security Issues
POLS 3412 Homeland Security Policy and Politics
POLS $3425 \quad$ U.S. Foreign Policy
POLS 4948 Community-Based Research Practicum
CONCENTRATION IN SECURITY STUDIES

| Code <br> Complete four of the following: | Hours |  |
| :--- | :--- | ---: |
| POLS 3408 | International Security | 16 |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3420 | U.S. National Security Policy |  |
| POLS 3423 | Terrorism and Counterterrorism |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3430 | Revolution, Civil War, and Insurrection |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 4918 | Model NATO |  |

## Political Science, BA/MPA

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses
where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).
Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Introduction to College

Complete "Introduction to College" for your major.

## Political Science Major Requirements

Political Science Requirements

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  | 4 |
| Complete one of the following: |  |  |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |

Political Science Capstone
Complete one of the following:

| POLS 4701 | Political Science Senior Capstone |
| :--- | :--- |
| POLS 4703 | Senior Thesis |

## Political Science Experiential Learning Requirement

Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

## Courses

Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4942 | Internship in Politics |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 | Community-Based Research Practicum |

## Co-op or Study Abroad

Complete one cooperative education experience or one study-

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete six political science electives with a minimum of four numbered 2000 or above.

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 822).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Major Credit Requirement

Complete 52 semester hours in the major.
Graduate Courses taken as an Undergraduate Student
Minimum 3.000 GPA required in all graduate courses

| $\begin{aligned} & \text { LPSC } 7305 \\ & \text { or POLS } 7202 \end{aligned}$ | Research and Statistical Methods Quantitative Techniques | 3 |
| :---: | :---: | :---: |
| PPUA 6500 | Principles of Public Administration | 3 |
| Complete up to three of the following: |  | 9 |
| PPUA 6502 | Economic Institutions and Analysis |  |
| PPUA 6503 | Public Personnel Administration |  |
| PPUA 6504 | Organizational Theory and Management |  |
| PPUA 6505 | Public Budgeting and Financial Management |  |
| Program Requirements <br> 128 total semester hours required |  |  |

128 total semester hours required

| Concentrations |  |
| :--- | ---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |
| Code $\quad$ Title | Hours |
| Complete four of the following: | 16 |


| POLS 2350 | State and Local Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |


| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN COMPARATIVE POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Theoretical Requirement |  |  |
| Complete one of the following: |  |  |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of the following: |  |  |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia <br> POLS 3460Contemporary Government and Politics <br> in Africa |  |
| POLS 3465 | Government and Politics in the Middle <br> East |  |
| POLS 3475 | Government and Politics in Latin <br> America |  |
| POLS 3480 | Government and Politics in Japan <br> POLS 3485China: Governance and Foreign Policy |  |

Experiential/Practicum Requirement
Complete one of the following:

| POLS 4915 | Model Arab League |
| :--- | :--- |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4937 | Dialogue of Civilizations: Government <br> and Politics Abroad |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Course |  |  |
| POLS 3415 | Ethnic Political Violence | 4 |
| or POLS 3418 | Nationalism |  |


| Electives |  |  |
| :---: | :---: | :---: |
| Complete three of the following: |  | 12 |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3324 | Law and Society |  |
| CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY |  |  |
| Code | Title | Hours |
| Experiential/Practicum Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 4910 | Model United Nations |  |
| POLS 4915 | Model Arab League |  |
| POLS 4917 | Model European Union |  |
| POLS 4918 | Model NATO |  |
| POLS 4938 | Dialogue of Civilizations: International Politics Abroad |  |
| Core Courses |  |  |
| Complete three of the following: |  | 12 |
| POLS 3405 | International Political Economy |  |
| POLS 3406 | International Law |  |
| POLS 3407 | International Organizations |  |
| POLS 3408 | International Security |  |
| POLS 3409 | Global Governance |  |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| CONCENTRATION IN LAW AND LEGAL STUDIES |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2330 | American Political Thought |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3324 | Law and Society |  |
| POLS 3406 | International Law |  |
| POLS 4500 | U.S. Constitutional Law |  |
| POLS 4505 | U.S. Civil Liberties |  |
| CONCENTRATION IN PUBLIC POLICY |  |  |
| Code | Title | Hours |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |


| POLS 2340 | Business and Government |  |
| :---: | :---: | :---: |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 4948 | Community-Based Research Practicum |  |
| CONCENTRATION IN SECURITY STUDIES |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 3408 | International Security |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3420 | U.S. National Security Policy |  |
| POLS 3423 | Terrorism and Counterterrorism |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3430 | Revolution, Civil War, and Insurrection |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 4918 | Model NATO |  |

## Political Science, BA/Security and Resilience Studies, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p.38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Introduction to College

Complete "Introduction to College" for your major.

## Political Science Major Requirements

| Political Science Requirements |  |
| :--- | :--- |
| POLS 1150 | American Government |
| POLS 1155 | Comparative Politics |
| POLS 1160 | International Relations |
| POLS 2399 | Research Methods in Political Scie |
| POLS 2400 | Quantitative Techniques |
| Political Theory |  |
| Complete one of the following: |  |
| POLS 2330 | American Political Thought |
| POLS 2326 | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |
| POLS 2332 | Contemporary Political Thought |

## Political Science Capstone

Complete one of the following:

| POLS 4701 | Political Science Senior Capstone |
| :--- | :--- |
| POLS 4703 | Senior Thesis |

## Political Science Experiential Learning Requirement

Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

## Courses

Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4942 | Internship in Politics |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 | Community-Based Research Practicum |

## Co-op or Study Abroad

Complete one cooperative education experience or one studyabroad experience.

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete six political science electives with a minimum of
four numbered 2000 or above.

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 824)

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Undergraduate Major Credit Requirement <br> Complete 52 semester hours in the major.

| Graduate Courses taken as an Undergraduate Student |  |  |
| :--- | :--- | :--- |
| POLS 7341 | Security and Resilience Policy | 3 |
| POLS 7342 | Security and Resilience Studies Toolkit | 1 |
| POLS 7347 | Controversial Issues in Security Studies | 1 |
| POLS 7704 | Critical Infrastructure Resilience | 4 |
| POLS 7369 | International Security | 3 |
| Complete an additional graduate course to count toward the  <br> graduate program.  | 3 |  |

## Program Requirements

128 total semester hours required
Minimum 3.000 GPA required in all graduate courses.

## Concentrations

CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

Required Courses
With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 | Campaign Strategy | 4 |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |  |
| :---: | :--- | :--- |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3162 | Local Campaigns and Elections |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3402 | Survey Research and Polling | Hours |
| POLS 3304 | Presidential Nominating Process |  |
| CONCENTRATION IN COMPARATIVE POLITICS |  |  |
| Code |  |  |
| Theoretical Requirement | Title |  |
| Complete one of the following: |  |  |



| POLS 3420 | U.S. National Security Policy |
| :--- | :--- |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |


| POLS 7341 | 3 POLS 7369 | 3 |
| :--- | :--- | :--- |
| POLS 7342 | Specialization <br> elective | 3 |
| POLS 7347 | 1 |  |
| POLS 7704 | 4 | 14 |
|  | 17 |  |

Total Hours: 129

## Four Years, 1 Co-op (option 2)

## Plan of Study

## Four Years, 1 Co-op (option 1)

| Year 1 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fall | 4 POLS 1150 | 4 Elective | 4 Vacation |  |
| POLS 1000 | 4 POLS 1160 | 4 Elective | 4 |  |
| POLS 1155 | 4 BA <br> Language <br> Requirement <br> \#1 | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| Elective | 4 | 16 | 8 | 0 |


| Year 2 | Hours Summer 1 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fall |  |$\quad$| Hours Summer 2 |
| :---: | Hours


| Year 3 <br> Fall <br> Co-op | Hours Spring <br> Political <br> Science <br> elective \#2 | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
|  | Political <br> Science <br> elective \#3 | 4 |  |  |
| Advanced <br> Writing <br> in the <br> Disciplines | 4 |  |  |  |
|  | Elective | 4 | 0 | 0 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
| Elective | 4 POLS 4701 | 4 |

Year 3

| Fall <br> EESH 2000 | Hours Spring <br> 1 Co-op | Hours Summer 1 Co-op | Hours Summer 2 <br> Vacation | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Political Science elective \#2 | 4 |  |  |  |
| Political <br> Science <br> Elective \#3 | 4 |  |  |  |
| Advanced <br> Writing <br> in the <br> Disciplines | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 0 | 0 | 0 |

## Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Elective | 4 Elective | 4 |
| Elective | 4 POLS 4701 | 4 |
| POLS 7341 | 3 POLS 7369 | 3 |
| POLS 7342 | 1Specializatior <br> elective | 3 |


| POLS 7347 | 1 |  |
| ---: | ---: | ---: |
| POLS 7704 | 4 |  |
|  | 17 | 14 |

Total Hours: 129

## Fours Years, 2 Co-ops



| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Political | 4 Co-op | Co-op | Elective | 4 |
| Science <br> Theory <br> course |  |  |  |  |
| Political <br> Science <br> elective \#1 | 4 |  |  |  |
| Political <br> Science <br> elective \#2 | 4 |  |  | 4 |
| BA <br> Language | 4 |  |  |  |
| Requirement <br> \#3 |  |  |  |  |


| Year 4 |  |  |  |
| :--- | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours |
| Advanced <br> Writing <br> in the <br> Disciplines | Political <br> Science | 4 Elective | 4 |


| POLS 7704 | 4 |  |  |
| ---: | ---: | ---: | :--- |
|  | 17 | 14 | 8 |

Total Hours: 129

## Political Science, BA/JD

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## Political Science, BS/MA

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

## Introduction to College

Complete "Introduction to College" for your major.

## Political Science Major Requirements

Political Science Requirements

| POLS 1150 | American Government | 4 |
| :---: | :---: | :---: |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Capstone |  |  |
| Complete one of the following: |  | 4 |
| POLS 4701 | Political Science Senior Capstone |  |

POLS 4703 Senior Thesis
Political Science Experiential Learning Requirement
Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

## Courses

Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4942 | Internship in Politics |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 | Community-Based Research Practicum |

Co-op or Study Abroad
Complete one cooperative education experience or one study-
abroad experience.

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete eight political science electives with a minimum of
four numbered 2000 or above.

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 828).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Major Credit Requirement

Complete 60 semester hours in the major.
Graduate Courses taken as an Undergraduate Student
Minimum 3.000 GPA required in all graduate courses

| POLS 7202 | Quantitative Techniques | 3 |
| :--- | :--- | :--- |
| Complete three courses from the following range: | 9 |  |

POLS 5100 to POLS 7978

## Program Requirements

128 total semester hours required

## Concentrations

## $\begin{array}{lll}\text { CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS } \\ \text { Code } & \text { Title Hours }\end{array}$

Complete four of the following:
POLS 2350 State and Local Politics

| POLS 2355 | Intergovernmental Relations |
| :--- | :--- |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3304 | Presidential Nominating Process |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |

## CONCENTRATION IN CAMPAIGNS AND ELECTIONS Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.
POLS $3160 \quad$ Campaign Strategy 4
POLS 4947 Campaign and Elections Practicum 4

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |
| CONCENTRATION IN COMPARATIVE POLITICS |  |

CONCENTRATION IN COMPARATIVE POLITICS

| Code | Title | Hours |
| :---: | :---: | :---: |
| Theoretical Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two | following: | 8 |


| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| :--- | :--- |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3450 | Government and Politics in Russia |
| POLS 3460 | Contemporary Government and Politics <br> in Africa |
| POLS 3465 | Government and Politics in the Middle <br> East |
| POLS 3475 | Government and Politics in Latin <br> America |
| POLS 3480 | Government and Politics in Japan |
| POLS 3485 | China: Governance and Foreign Policy |

Experiential/Practicum Requirement
Complete one of the following:

| POLS 4917 | Model European Union |  |
| :--- | :--- | :--- |
| POLS 4918 | Model NATO |  |
| POLS 4937 | Dialogue of Civilizations: Government |  |
| and Politics Abroad |  |  |$\quad$ Hours

## POLS 4505 U.S. Civil Liberties

## CONCENTRATION IN PUBLIC POLICY

| Code | Title | Hours |
| :---: | :---: | :---: |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the following: |  | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 4948 | Community-Based Research Practicum |  |

## CONCENTRATION IN SECURITY STUDIES

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete four of the following: | 16 |  |
| POLS 3408 | International Security |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3420 | U.S. National Security Policy |  |
| POLS 3423 | Terrorism and Counterterrorism |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3430 | Revolution, Civil War, and Insurrection |  |
| POLS 3470 | Arab-Israeli Conflict |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 4918 | Model NATO |  |

## Political Science, BS/MPA

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Undergraduate students apply to the PlusOne bachelor's/master's program through the graduate school. Once admitted, students may count a maximum of 16 semester hours of graduate credit toward the undergraduate degree.

## Introduction to College

Complete "Introduction to College" for your major.

## Political Science Major Requirements

Political Science Requirements

| POLS 1150 | American Government | 4 |
| :---: | :---: | :---: |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  |  |
| Complete one of the following: |  | 4 |
| POLS 2330 | American Political Thought |  |
| POLS 2326 | Premodern Political Thought |  |
| POLS 2328 | Modern Political Thought |  |
| POLS 2332 | Contemporary Political Thought |  |
| Political Science Capstone |  |  |
| Complete one of the following: |  | 4 |
| POLS 4701 | Political Science Senior Capstone |  |
| POLS 4703 | Senior Thesis |  |

## Political Science Experiential Learning Requirement

Complete one course or experience from the following options. Note: Up
to two credit-bearing courses count toward political science electives.

Courses

| Complete one of the following: |  |
| :--- | :--- |
| POLS 4910 | Model United Nations |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4942 | Internship in Politics |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 | Community-Based Research Practicum |
| Co-op or Study Abroad |  |
| Complete one cooperative education experience or one study- | 4 |

abroad experience.

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete eight political science electives with a minimum of

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 830).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Major Credit Requirement

Complete 60 semester hours in the major.

| Graduate Courses taken as an Undergraduate Student <br> Minimum 3.000 GPA required in all graduate courses |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { LPSC } 7305 \\ & \text { or POLS } 7202 \end{aligned}$ | Research and Statistical Methods Quantitative Techniques | 3 |
| PPUA 6500 | Principles of Public Administration | 3 |
| Complete up to three of the following: |  |  |
| PPUA 6502 | Economic Institutions and Analysis |  |
| PPUA 6503 | Public Personnel Administration |  |
| PPUA 6504 | Organizational Theory and Management |  |
| PPUA 6505 | Public Budgeting and Financial Management |  |

## Program Requirements

128 total semester hours required

| Concentrations |  |  |
| :---: | :---: | :---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code | Title | Hours |
| Complete four of the following: |  | 16 |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| CONCENTRATION IN CAMPAIGNS AND ELECTIONS |  |  |
| Code | Title | Hours |
| Required Courses |  |  |
| With advisor approval, a co-op or internship may be substituted in place of POLS 4947. |  |  |
| POLS 3160 | Campaign Strategy | 4 |
| POLS 4947 | Campaign and Elections Practicum | 4 |

## Campaigns and Elections Electives

If POLS 4947 was replaced by a co-op or internship, an
additional elective must be taken.

| Complete two of the following: |  |
| :--- | :--- |
| POLS 2345 | Urban Policies and Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

## CONCENTRATION IN COMPARATIVE POLITICS

| Code | Title | Hours |
| :---: | :---: | :---: |
| Theoretical Requirement |  |  |
| Complete one of the following: |  | 4 |
| POLS 2370 | Religion and Politics |  |
| POLS 3415 | Ethnic Political Violence |  |
| POLS 3418 | Nationalism |  |
| POLS 3427 | Civil-Military Relations |  |
| POLS 3487 | Politics of Developing Nations |  |
| POLS 3490 | Democracy in Comparative Politics |  |
| Regional Requirements |  |  |
| Complete two of the following: |  | 8 |
| POLS 3435 | Politics and Governance of Europe and the European Union |  |
| POLS 3445 | Politics in Central and Eastern Europe |  |
| POLS 3450 | Government and Politics in Russia |  |
| POLS 3460 | Contemporary Government and Politics in Africa |  |
| POLS 3465 | Government and Politics in the Middle East |  |
| POLS 3475 | Government and Politics in Latin America |  |
| POLS 3480 | Government and Politics in Japan |  |
| POLS 3485 | China: Governance and Foreign Policy |  |

Experiential/Practicum Requirement
Complete one of the following:
POLS $4915 \quad$ Model Arab League

POLS 4917 Model European Union
POLS 4918 Model NATO
POLS 4937 Dialogue of Civilizations: Government and Politics Abroad

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS

| Code <br> Core Course | Title | Hours |
| :--- | :--- | ---: |
| POLS 3415 |  |  |
| or POLS 3418 | Ethnic Political Violence |  |
| Electives |  | 4 |
| Complete three of the following: | 12 |  |
| POLS 2333 | Politics and Film |  |
| POLS 2336 | Politics and the Arts |  |
| POLS 2360 | Politics of Poverty |  |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |


| POLS 2375 | Gender and Politics |
| :--- | :--- |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY

Code Title Hours

Experiential/Practicum Requirement
Complete one of the following: 4

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br>  |

Core Courses
Complete three of the following: 12

| POLS 3405 | International Political Economy |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3409 | Global Governance |
| POLS 3435 | Politics and Governance of Europe and <br> the European Union |
| POLS 3445 | Politics in Central and Eastern Europe |
| POLS 3470 | Arab-Israeli Conflict |

## CONCENTRATION IN LAW AND LEGAL STUDIES

Code Title Hours
Complete four of the following: 16

| POLS 2330 | American Political Thought |
| :--- | :--- |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3324 | Law and Society |
| POLS 3406 | International Law |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |


| CONCENTRATION IN PUBLIC POLICY |  |
| :--- | :--- | :--- |
| Code | Title Hours |

Core Requirement
POLS 3307 Public Policy and Administration 4
Electives
Complete three of the following: 12

| POLS 2334 | Bureaucracy and Government <br> Organizations |
| :--- | :--- |
| POLS 2335 | Budgeting and Taxation |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2357 | Growth and Decline of Cities and <br> Suburbs |
| POLS 2385 | U.S. Health and Welfare Policy |
| POLS 2390 | Science, Technology, and Public Policy |


| POLS 2395 | Environmental Politics and Policy |
| :--- | :--- |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3402 | Survey Research and Polling |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3425 | U.S. Foreign Policy |
| POLS 4948 | Community-Based Research Practicum |

CONCENTRATION IN SECURITY STUDIES
Code $\quad$ Title Hours

| Complete four of the following: |  |
| :---: | :--- |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3423 | Terrorism and Counterterrorism |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3427 | Civil-Military Relations |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4918 | Model NATO |

## Political Science, BS/Security and Resilience Studies, MS

## Program Requirements

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath
Requirements (p. 34).

## Introduction to College

Complete "Introduction to College" for your major.
Political Science Major Requirements
Political Science Requirements

| POLS 1150 | American Government | 4 |
| :--- | :--- | :--- |
| POLS 1155 | Comparative Politics | 4 |
| POLS 1160 | International Relations | 4 |
| POLS 2399 | Research Methods in Political Science | 4 |
| POLS 2400 | Quantitative Techniques | 4 |
| Political Theory |  | 4 |


| POLS 2330 | American Political Thought |
| :---: | :--- |
| POLS 2326 | Premodern Political Thought |
| POLS 2328 | Modern Political Thought |
| POLS 2332 | Contemporary Political Thought |
| Political Science Capstone | 4 |
| Complete one of the following: |  |
| POLS 4701 | Political Science Senior Capstone |
| POLS 4703 | Senior Thesis |

## Political Science Experiential Learning Requirement

Complete one course or experience from the following options. Note: Up to two credit-bearing courses count toward political science electives.

## Courses

Complete one of the following:

| POLS 4910 | Model United Nations |
| :--- | :--- |
| POLS 4915 | Model Arab League |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4942 | Internship in Politics |
| POLS 4944 | Student Leadership Practicum |
| POLS 4948 |  |
| Co-op or Study Abroad |  |
| Complete one cooperative education experience or one study- |  |
| abroad experience. |  |

## Political Science Electives

Note: You may use four courses from the elective area to fulfill a concentration.

Complete six political science electives with a minimum of 24 four numbered 2000 or above.

## Political Science Concentrations (Optional)

If you are working toward one of the following concentrations, declare it with your advisor so that it may be added to your record. Requirements for the concentrations are listed below (p. 833).

- American Political Institutions
- Campaigns and Elections
- Comparative Politics
- Identity, Culture and Politics
- International Relations and Diplomacy
- Law and Legal Studies
- Public Policy
- Security Studies


## Political Science Undergraduate Major Credit Requirement

Complete 52 semester hours in the major.

## Graduate Courses taken as an Undergraduate Student

| POLS 7341 | Security and Resilience Policy | 3 |
| :--- | :--- | :--- |
| POLS 7342 | Security and Resilience Studies Toolkit | 1 |
| POLS 7347 | Controversial Issues in Security Studies | 1 |
| POLS 7704 | Critical Infrastructure Resilience | 4 |
| POLS 7369 | International Security | 3 |

Complete an additional graduate course to count toward the graduate program.

## Program Requirements

128 total semester hours required
Minimum 3.000 GPA required in all graduate courses.

| Concentrations |  |  |
| :--- | :--- | ---: |
| CONCENTRATION IN AMERICAN POLITICAL INSTITUTIONS |  |  |
| Code <br> Complete four of the following: | Hours |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2355 | Intergovernmental Relations |  |
| POLS 3300 | The U.S. Congress |  |
| POLS 3302 | Judicial Process and Behavior |  |
| POLS 3304 | Presidential Nominating Process |  |
| POLS 3305 | The American Presidency |  |
| POLS 3307 | Public Policy and Administration |  |
| POLS 3310 | Public Opinion, Voting, and Elections |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |

CONCENTRATION IN CAMPAIGNS AND ELECTIONS
Code Title Hours

## Required Courses

With advisor approval, a co-op or internship may be substituted in place of POLS 4947.

| POLS 3160 Campaign Strategy | 4 |  |
| :--- | :--- | :--- |
| POLS 4947 | Campaign and Elections Practicum | 4 |

Campaigns and Elections Electives
If POLS 4947 was replaced by a co-op or internship, an additional elective must be taken.
Complete two of the following: 8

| POLS 2345 | Urban Policies and Politics |
| :--- | :--- |
| POLS 2355 | Intergovernmental Relations |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3162 | Local Campaigns and Elections |
| POLS 3320 | Politics and Mass Media |
| POLS 3402 | Survey Research and Polling |
| POLS 3304 | Presidential Nominating Process |

CONCENTRATION IN COMPARATIVE POLITICS
Code Title Hours

| Theoretical Requirement |
| :--- |
| Complete one of the following: 4 <br> POLS 2370 Religion and Politics <br> POLS 3415 Ethnic Political Violence <br> POLS 3418 Nationalism <br> POLS 3427 Civil-Military Relations <br> POLS 3487 Politics of Developing Nations <br> POLS 3490 Democracy in Comparative Politics |
| Regional Requirements |
| Complete two of the following: |

[^27]Complete one of the following:

| POLS 4915 | Model Arab League |
| :--- | :--- |
| POLS 4917 | Model European Union |
| POLS 4918 | Model NATO |
| POLS 4937 | Dialogue of Civilizations: Government <br> and Politics Abroad |

CONCENTRATION IN IDENTITY, CULTURE, AND POLITICS
Code Title Hours

Core Course

Electives
Complete three of the following: 12

| POLS 2333 | Politics and Film |
| :--- | :--- |
| POLS 2336 | Politics and the Arts |
| POLS 2360 | Politics of Poverty |
| POLS 2368 | Music and Politics |
| POLS 2370 | Religion and Politics |
| POLS 2375 | Gender and Politics |
| POLS 2380 | Latino Politics in the United States |
| POLS 3309 | Lesbian, Gay, Bisexual, and |
|  | Transgender Issues in Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 3324 | Law and Society |

CONCENTRATION IN INTERNATIONAL RELATIONS AND DIPLOMACY
Code Title Hours

| Code | Hours |
| :--- | :--- |
| Experiential/Practicum Requirement | 4 |
| Complete one of the following: | 4 |

Complete one of the following: 4
POLS $4910 \quad$ Model United Nations
POLS 4915 Model Arab League
POLS 4917 Model European Union
POLS 4918 Model NATO
POLS 4938 Dialogue of Civilizations: International Politics Abroad

## Core Courses

Complete three of the following:
POLS 3405 International Political Economy
POLS 3406 International Law
POLS 3407 International Organizations
POLS 3408 International Security
POLS 3409 Global Governance
POLS $3435 \quad$ Politics and Governance of Europe and the European Union


| ENGW 1111 | 4 <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> RA <br> Requirement <br> $\# 1$ | 4 |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Elective | 4 | Elective | 4 |  |
| Elective | 4 | 16 | 8 | 0 |

$\left.\begin{array}{lcccc}\text { Year 2 } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Fall } & \begin{array}{c}\text { 4 EESH 2000 }\end{array} & \begin{array}{c}\text { Elective }\end{array} & 4 \text { Co-op }\end{array}\right]$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | Politics <br> elective \#2 | 4 Vacation |  |  |
| Politics <br> elective \#3 | 4 |  |  |  |
| Advanced <br> Writing <br> in the <br> Disciplines | 4 |  |  |  |
|  | Elective | 4 | 0 | 0 |

Year 4

| Fall | Hours Spring | Hours |
| :--- | :---: | ---: |
| Elective | 4 Elective | 4 |
| Elective | 4 POLS 4701 | 4 |
| POLS 7341 | 3 POLS 7369 | 3 |
| POLS 7342 | 1 <br> Specialization <br> elective | 3 |
| POLS 7347 | 1 | 14 |
| POLS 7704 | 4 |  |

Total Hours: 129

## Fours Years, 2 Co-ops

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| POLS 1000 | 1 POLS 1150 | 4 Elective | 4 Vacation |  |
| POLS 1155 | 4 POLS 1160 | 4 Elective | 4 |  |
| ENGW 1111 | 4 POLS 2399 | 4 |  |  |
| Elective | 4 Elective | 4 |  |  |
| Elective | 4 | 16 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 <br> Co-op | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| EESH 2000 | 1 Co-op |  | Elective <br> $(3000+$ level) | 4 |
| POLS 2400 | 4 |  |  | 4 |
| Politics <br> elective \#1 | 4 |  |  |  |
| Politics <br> elective \#2 | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Politics | 4 Co-op | Co-op | Elective | 4 |
| Theory <br> course |  |  | $(3000+$ level $)$ |  |
| Politics <br> elective \#3 | 4 |  | Elective | 4 |

elective \#4


## Political Science, BS/JD

## Program Requirements

Students in the 3+3 Program begin their first-year law school courses during their fourth year of study and apply those credits toward both their bachelor's degree and law degree. The program is available only by invitation.

## Political Science, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

Complete two of the following:
POLS 1150 American Government

POLS 1160 International Relations

## Elective Courses

Complete three political science courses.

## GPA Requirement

2.000 GPA required in the minor

## American Political Institutions, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: This minor is restricted to students who are not enrolled in the political science major or in any political science combined major.

## Required Course

POLS 1150
American Government
Electives

| Complete four of the following: |  |
| :--- | :--- |
| POLS 2334 | Bureaucracy and Government <br> Organizations |
| POLS 2340 | Business and Government |
| POLS 2345 | Urban Policies and Politics |
| POLS 2350 | State and Local Politics |
| POLS 2355 | Intergovernmental Relations |
| POLS 3300 | The U.S. Congress |
| POLS 3302 | Judicial Process and Behavior |
| POLS 3305 | The American Presidency |
| POLS 3307 | Public Policy and Administration |
| POLS 3310 | Public Opinion, Voting, and Elections |
| POLS 3315 | Interest Groups and Public Policy |
| POLS 3320 | Politics and Mass Media |
| POLS 4500 | U.S. Constitutional Law |
| POLS 4505 | U.S. Civil Liberties |

## GPA Requirement

2.000 GPA required in the minor

## International Security Studies, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Note: Political science majors and combined majors may not pursue the minor in international security studies.

## Required Course

POLS 1160
International Relations

## Required Core Courses

Complete two of the following:

| POLS 3408 | International Security |
| :--- | :--- |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |

## POLS 3420 <br> U.S. National Security Policy

## Elective Courses

Students may not count any of the courses toward more than one requirement.
Complete two of the following: 8

| ARMY 3503 | American Military History |
| :--- | :--- |
| POLS 3406 | International Law |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3412 | Homeland Security Policy and Politics |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3425 | U.S. Foreign Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3470 | Arab-Israeli Conflict |
| POLS 3487 | Politics of Developing Nations |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |

## GPA Requirement

2.000 GPA required in the minor

## Sociology and Anthropology

Website (http://www.northeastern.edu/socant)
Matthew O. Hunt, PhD
Professor and Chair

500 Holmes Hall
617.373.2686
617.373 .2688 (fax)

Mary Ramsey, Administrative Assistant, m.ramsey@northeastern.edu
Sociology and cultural anthropology provide the critical perspective needed for studying the social and cultural arrangements in which people live, for understanding how societies function, for investigating the conditions under which people change their institutions, and for describing the modes and conditions of cooperation that make social life possible.

Courses in the program examine such areas as urbanization, the environment, health, globalization and human rights, gender and sexuality, social movements, the cultural underpinnings of science and technology, new media, and the comparative analysis of advanced capitalist 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.

## Academic Progression Standards

Same as university-wide standards described under "Academic Status (p. 28)."

## Preapproved Template Program in Cultural Anthropology

The Department of Sociology and Anthropology offers a preapproved template program in cultural anthropology. The template program may be
paired with another preapproved template program to create a combined major; to see a list of current preapproved template programs, visit the combined majors webpage (http://www.northeastern.edu/registrar/ major-2.html).

Students may request admission to such a combined major via the Combined Major Approval form (http://www.northeastern.edu/registrar/ form-maj-comb.pdf), which requires approval by both disciplines/colleges together with an approved curriculum. For additional information on preapproved template programs, see "Student-Requested Combined Major (p. 30)." For template program requirements, visit the myNEU web portal (http://www.myneu.neu.edu), click on the "Self-Service" tab, then on "My Degree Audit."

## PlusOne Program (MA) in Sociology

Sociology majors at the end of their sophomore year or the beginning of their junior year may qualify for application to the PlusOne program that combines the BA with the master's degree in sociology. Students interested in this option should consult with the departmental advisor by the end of the sophomore year.

## Programs

## Bachelor of Arts (BA)

- Sociology (p. 837)
- Cultural Anthropology (p. 839)
- Sociology and Cultural Anthropology (p. 840)
- Communication Studies and Sociology (p. 841)
- English and Cultural Anthropology (p. 846)
- Human Services and Sociology (p. 848)
- International Affairs and Cultural Anthropology (p. 849)
- Media and Screen Studies and Sociology (p. 852)
- Sociology and Political Science (p. 853)


## Bachelor of Science (BS)

- Sociology (p. 855)
- Computer Science and Sociology (p. 843)
- Cultural Anthropology (p. 857)
- Sociology and Cultural Anthropology (p. 858)
- Human Services and Sociology (p. 859)
- Linguistics and Cultural Anthropology (p. 860)


## Dual Degrees

- Sociology, BA/MA (p. 862)
- Sociology, BS/MA (p. 863)


## Minors

- Sociology (p. 864)
- Cultural Anthropology (p. 864)


## Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Sociology Major Requirements

Courses in the major require a grade of C or higher.

## Required Sociology

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |

## Cultural Anthropology

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Senior Seminar |  | 4 |
| SOCL 4600 | Senior Seminar | 4 |

## Required Sociology Electives

Introductory-Level Electives
Complete one course from the following range: 4
SOCL 1100 to SOCL 1999
Intermediate-Level Electives
Complete two courses from the following range: 8

SOCL 2000 to SOCL 3999
Elective in Social Change

| Complete one of the followiing: |  |
| :--- | :--- |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 2268 | Social Movements |
| SOCL 2450 | Class, Power, and Social Change |

Elective in Social Inequality
Complete one of the following: 4

| SOCL 1245 | Sociology of Poverty |
| :--- | :--- |
| SOCL 1275 | Social Stratification |
| SOCL 2205 | Law and Social Justice |
| SOCL 2270 | Race and Ethnic Relations |

## Advanced-Level Elective

Complete one course from the following range:
SOCL 4000 to SOCL 4999

## Social Science Electives

Complete four social science courses from the following
subject areas: AFRS, AFAM, ANTH, CRIM, ECON, HUSV, HIST,
INTL, LING, LPSC, POLS, or PSYC.
The following course may also be used as a social science
elective:
WMNS 3441 Topics in Women's, Gender, and Sexuality Studies

## Sociology Experiential Learning Requirement

| Complete one of the following courses or a study abroad or a |
| :--- |
| co-op: |
| SOCL 3470 Social Conflict and Community Service <br> SOCL 3487 Applied Sociology: Practice and Theory <br> SOCL 4971 Junior/Senior Honors Project 2 <br> SOCL 4996 Experiential Education Directed Study <br> SOCL 3488 Doing Sociology in the City Abroad |

## Sociology Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 1000 | 1 SOCL 1200- <br> level elective | 4 Vacation | 0 Vacation | 0 |
| SOCL 1101 | 4 SOCL 1200- <br> level elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  | 0 |
| ANTH 1101 | 4 | 16 | 0 | 0 |


| Year 2 | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Fall | 4 Foreign <br> language <br> core course | 4 Vacation | 0 Co-op | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 ENGW 3315 | 4 Elective | 4 Co-op | 0 |
|  | Foreign <br> language <br> core course | 4 SOCL <br> intermediate <br> elective | 4 |  |
|  | Elective | 4 |  |  |
|  | SOCL <br> intermediate <br> elective | 4 | 8 | 0 |
| 0 | 16 |  | 8 |  |

## Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Co-op | 0 Foreign | 4 Elective | 4 Co-op | 0 |
|  | language <br> core course |  |  |  |


| Elective | 4 Social <br> science <br> elective | 4 |
| :--- | :--- | :--- |
| SOCL <br> intermediate <br> elective | 4 |  |
| Social <br> science <br> elective | 4 | 8 |

Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| Co-op | 0 SOCL 4600 | 4 |
|  | SOCL <br> advanced <br> elective | 4 |
|  | Social <br> science <br> elective | 4 |
|  | Elective | 4 |
| Total Hours: 130 |  | 16 |

## Five Years, Three Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 1000 | 1 SOCL 1200- <br> level elective | 4 Vacation | 0 Vacation | 0 |
| SOCL 1101 | 4 SOCL 1200- <br> level elective | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  | 0 |
| ANTH 1101 | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 2300 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| SOCL 2320 | 4 |  | Foreign <br> language <br> core course | 4 |
| Social <br> science <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EESH 2000 | 1 | 0 | 0 |  |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| Foreign <br> language | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| core course | 4 | SOCL <br> intermediate <br> enGW 3315 | elective |  |$\quad 4$


| SOCL 2321 | 4 |  |  |  |
| :--- | ---: | :--- | :--- | :--- |
| 16 | 0 | 0 | 8 |  |


| Year 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Social <br> science <br> elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Foreign language core course | 4 |  |  |  |
| SOCL intermediate elective | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5


Total Hours: 130

## Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Cultural Anthropology Major Requirements

| Cultural Anthropology |  |  |
| :--- | :--- | :--- |
| A grade of C or higher is required: ${ }^{1}$ |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |
| ANTH 3410 | Ethnographic Field Experience | 4 |


| ANTH 4600 | Senior Seminar | 4 |
| :--- | :--- | :--- |
| SOCL 1101 | Introduction to Sociology | 4 |

Advanced Area Courses
A grade of $C$ or higher is required. Additional courses taken in this section may be used as electives.
Complete two of the following: 8

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br>  <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Anthropology Electives

Complete six ANTH courses. Two study- abroad courses may 24 count toward this requirement with prior permission from the department.
Social Science Electives
Complete three social science courses from the following
subject areas. Social science electives may not include music or art: AFRS, AFAM, CRIM, ECON, HUSV, HIST, INTL, LING,
LPSC, POLS, PSYC, or SOCL.
${ }^{1}$ Students must choose between a one-semester senior project, which they would complete in the context of Senior Seminar (ANTH 4600), or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## Cultural Anthropology Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 1000 | 1 SOCL 1101 | 4 Vacation | 0 Vacation | 0 |
| ANTH 1101 | A Anthropology <br> elective | 4 |  |  |
| Social <br> science <br> elective | 4 ENGW 1111 | 4 |  |  |
| Elective | 4 MATH 1215 | 4 |  | 0 |
| Elective | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| ANTH 2300 | 4 Social science elective | 4 Vacation | 0 Co-op | 0 |
| Foreign language core course | 4 Foreign language core course | 4 |  |  |
| Social science elective | 4 Elective | 4 |  |  |


| Elective | 4 Anthropology <br> elective | 4 |  |  |
| :--- | :--- | :---: | :--- | :--- |
| EESH 2000 | 1 | 0 | 0 |  |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 Advanced area ANTH 4500-ANTH 4515 | 4 ANTH 2305 | 4 Co-op | 0 |
|  | Anthropology elective | 4 Elective | 4 |  |
|  | ENGW 3315 | 4 |  |  |
|  | Foreign language core course | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

$\left.\begin{array}{lcccr}\text { Year 4 } & \text { Hours Spring } & \text { Hours Summer 1 } \\ \text { Fall } & \begin{array}{c}\text { Hours Summer 2 } \\ \text { Co-op }\end{array} & \begin{array}{c}\text { Advanced } \\ \text { area ANTH } \\ 4500-A N T H ~\end{array} & 4 \text { Elective } & 4 \text { Co-op }\end{array}\right] 00$

| Year 5 |  |  |
| :--- | :---: | :---: |
| Fall | Hours Spring | Hours |
| Co-op | 0 ANTH 4600 | 4 |
|  | Elective | 4 |
|  | Anthropology <br> elective | 4 |
|  | Elective | 4 |
|  | 0 | 16 |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ANTH 1000 | 1 | SOCL 1101 | 4 Vacation | 0 Vacation | 0 |
| ANTH 1101 | 4 | Anthropology elective | 4 |  |  |
| Social science elective | 4 | ENGW 1111 | 4 |  |  |
| Elective | 4 | MATH 1215 | 4 |  |  |
| Elective | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 2300 | 4 Co-op | 0 Co-op | 0 Foreign | 4 |
|  |  |  | language <br> core course |  |


| Foreign <br> language <br> core course | 4 | Elective | 4 |  |
| :--- | :---: | :---: | :---: | :---: |
| Social <br> science <br> elective | 4 |  |  |  |
| Anthropology <br> elective | 4 |  |  |  |
| EESH 2000 | 1 | 0 | 0 | 8 |
|  | 17 |  |  |  |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 2305 | 4 Co-op | 0 Co-op | 0 Elective | 4 |
| Foreign <br> language <br> core course | 4 |  | Elective | 4 |
| ENGW 3315 | 4 |  |  |  |
| Anthropology <br> elective | 4 |  |  |  |

Year 5

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Advanced <br> area ANTH | 4 ANTH 4600 | 4 |
| $4500-$ ANTH <br> 4515 |  |  |
| Anthropology <br> elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
| Anthropology <br> elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 130

## Sociology and Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Sociology Major Requirements

## Required Sociology

A grade of $C$ or higher is required:

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |

## Sociology Electives

A grade of C - or higher is required in sociology electives.
Introductory Electives
Complete two courses in the following range:
8
SOCL 1110 to SOCL 1999
Intermediate Elective
Complete one course in the following range: 4
SOCL 2000 to SOCL 3999

## Advanced Elective

Complete one course in the following range:
SOCL 4000 to SOCL 4999

## Experiential Learning

Complete one of the following courses, or complete a study abroad or a dialogue of civilizations:

| SOCL 3470 | Social Conflict and Community Service |
| :--- | :--- |
| SOCL 3487 | Applied Sociology: Practice and Theory |
| SOCL 4996 | Experiential Education Directed Study |
| COOP 3945 | Co-op Work Experience |
| SOCL 4971 | Junior/Senior Honors Project 2 |

Anthropology Major Requirements
Cultural Anthropology

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ANTH 3410 | Ethnographic Field Experience | 4 |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |

Advanced Area Courses
$A$ grade of $C$ or higher is required.
Complete two of the following:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br>  <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Anthropology Electives

Complete four ANTH courses. One study-abroad course may
also count toward this requirement with prior permission from the department.

## Integrative Requirement

Students must choose between a one-semester senior project, which they would complete in the context of Senior Seminar (ANTH 4600) or Senior Seminar (SOCL 4600), or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## Required Course

ANTH 2305 Global Markets and Local Culture 4
Capstone

| SOCL 4600 | Senior Seminar | 4 |
| :---: | :--- | :--- |
| or ANTH 4600 | Senior Seminar |  |

## Sociology and Cultural Anthropology Combined-Major Credit Requirement <br> Complete 76 semester hours in the major. <br> Program Requirement <br> 128 total semester hours required

## Communication Studies and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## 4 NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Communication Studies Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Communications Studies Common Requirements |  |  |
| COMM 1000 | Communication Studies at | 1 |
|  | Northeastern |  |
| COMM 1101 | Introduction to Communication Studies | 4 |
| COMM 1112 | Public Speaking | 4 |
| or COMM 2301 | Communication Research Methods |  |

## Foundation Course

Complete one of the following: 4

| COMM 1210 | Persuasion and Rhetoric |
| :--- | :--- |
| COMM 1310 | Classical Foundations of <br>  <br> Communication |

COMM 1231 Principles of Organizational Communication
COMM 1225 Communication Theory
COMM 1255 Communication in a Digital Age

## Cluster Course

Complete one of the following:
4

| COMM 1131 | Sex, Relationships, and Communication |  |
| :---: | :---: | :---: |
| COMM 2303 | Global and Intercultural Communication |  |
| COMM 2304 | Communication and Gender |  |
| COMM 2501 | Communication Law |  |
| COMM 2551 | Free Speech in Cyberspace |  |
| Writing-Intensive Courses |  |  |
| Complete two of the following: |  | 8 |
| COMM 3201 | Health Communication |  |
| COMM 3230 | Interpersonal Communication |  |
| COMM 3304 | Communication and Inclusion |  |
| COMM 3320 | Political Communication |  |
| COMM 3331 | Argumentation and Debate |  |
| COMM 3414 | Great Speakers and Speeches 2, 1930Present |  |
| COMM 3415 | Communication Criticism |  |
| COMM 3500 | Environmental Issues, Communication, and the Media |  |
| COMM 3501 | Free Speech: Law and Practice |  |
| COMM 3530 | Communication and Sexualities |  |
| COMM 3532 | Theories of Conflict and Negotiation |  |
| COMM 3610 | Communication, Politics, and Social Change |  |
| COMM 4131 | Sex and Interpersonal Communication |  |
| COMM 4533 | Consultation Skills |  |
| COMM 4534 | Organizational Communication Training and Development |  |
| COMM 4535 | Nonverbal Social Interaction |  |
| COMM 4602 | Contemporary Rhetorical Theory |  |
| COMM 4605 | Youth and Communication Technology |  |
| COMM 4631 | Crisis Communication and Image Management |  |
| COMM 4901 | Seminar in Communications |  |
| COMM 4918 | Special Topics in Communication Studies |  |
| Communication Studies Electives |  |  |
| Complete three COMM courses. |  | 12 |

## Sociology Requirements

A grade of $C$ or higher is required in sociology requirements.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Sociology Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| Introductory Electives |  |  |
| Complete two of the following: | 8 |  |
| SOCL 1120 | Society and Health |  |
| and SOCL 1121 | and Society and Health Recitation |  |
| SOCL 1220 | Sociology of Boston |  |
| SOCL 1228 | Social Problems |  |
| SOCL 1235 | Social Psychology |  |
| SOCL 1241 | Sociology of Violence |  |
| SOCL 1240 | Sociology of Prejudice and Violence |  |


| SOCL 1245 | Sociology of Poverty |
| :---: | :---: |
| SOCL 1247 | Urban Social Problems |
| SOCL 1255 | Sociology of the Family |
| SOCL 1256 | Violence in the Family |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1275 | Social Stratification |
| SOCL 1283 | Globalization and Social Change |
| SOCL 1285 | Deviant Behavior and Social Control |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |
| Intermediate-Level Elective |  |
| Complete one of the following: |  |
| SOCL 2205 | Law and Social Justice |
| SOCL 2268 | Social Movements |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 2358 | Current Issues in Cities and Suburbs |
| SOCL 2450 | Class, Power, and Social Change |
| SOCL 3402 | Feminist Perspectives on Society |
| SOCL 3406 | Class, Crime, and the Legal System |
| SOCL 3407 | The Immigrant Experience: Ethnicity, Race, and Inequality in America |
| SOCL 3440 | Sociology of Human Service Organizations |
| SOCL 3408 | Sociology of Organizations |
| SOCL 3441 | Sociology of Health and Illness |
| SOCL 3451 | Privilege |
| SOCL 3455 | Seminar in Urban Sociology |
| SOCL 3465 | Globalization and the Evolution of Human Societies |
| SOCL 3485 | Environment, Technology, and Society |
| SOCL 3487 | Applied Sociology: Practice and Theory |

## Advanced-Level Elective

Complete one of the following: 4

| SOCL 4513 | Political Sociology |
| :--- | :--- |
| SOCL 4514 | "The Wire" and the Study of Urban <br> Inequalities |
| SOCL 4518 | Law and Social Issues |
| SOCL 4520 | Race, Class, and Gender |
| SOCL 4523 | Sexualities |
| SOCL 4528 | Computers and Society |
| SOCL 4535 | European Union: Social and Political |
| SOCL 4580 | Special Topics in Sociology |
| SOCL 4992 | Directed Study |

## Capstone and Integrative Requirements

Code Title Hours Integrative Course
Complete one of the following: 4 COMM 3320 Political Communication COMM 3532 Theories of Conflict and Negotiation
SOCL 1246 Environment and Society
SOCL 1297 Sociology of Popular Culture
Capstone/Senior Seminar Option
Complete one of the following two options:

Communications Capstone Option
Complete one COMM course and one SOCL course from the following list:

| COMM 4102 | Health Communication Campaigns |
| :--- | :--- |
| COMM 4530 | Communication and Quality of Life |
| COMM 4533 | Consultation Skills <br> COMM 4534 |
| Organizational Communication Training <br> and Development |  |
| COMM 4603 | Advocacy Workshop |
| COMM 4625 | Online Communities |
| SOCL 3000 to SOCL 4999 |  |
| Sociology Senior Seminar Option |  |
| Complete SOCL 4600 and one COMM course from the |  |
| following list: | SOCL 4600 |
| COMM 3000 to COMM 4999 |  |

## Communications Studies Grade Requirement

No more than two grades below a C in communication studies courses may be used to fulfill degree requirements.

## Communication Studies and Sociology Combined-Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

## Computer Science and Sociology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Computer Science Courses



Computer Science Overview

| CS 1200 | Computer Science/Information Science Overview 1 | 1 |
| :---: | :---: | :---: |
| CS 1210 | Computer Science/Information Science Overview 2: Co-op Preparation | 1 |
| Computer Science Fundamental Courses |  |  |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | Discrete Structures and Recitation for CS 1800 | 4 |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | Fundamentals of Computer Science 1 and Lab for CS 2500 | 5 |
| $\begin{aligned} & \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | Fundamentals of Computer Science 2 and Lab for CS 2510 | 5 |


| $\begin{aligned} & \text { CS } 2800 \\ & \text { and CS } 2801 \end{aligned}$ | Logic and Computation and Lab for CS 2800 | 5 |
| :---: | :---: | :---: |
| Computer Science Required Courses |  |  |
| CS 3200 | Database Design | 4 |
| CS 3500 | Object-Oriented Design | 4 |
| CS 4800 | Algorithms and Data | 4 |
| IS 2000 | Principles of Information Science | 4 |
| Computer Science Writing Intensive Requirement |  |  |
| Complete on | from the following: | 4 |
| CS 4500 | Software Development |  |
| IS 3500 | Information System Design and Development |  |
| DS 4200 | Information Presentation and Visualization (Take DS 4100 either as a prerequisite of or concurrently with DS 4200.) |  |

Computer Science Elective Courses
Complete two upper-division computer science courses from 8
the following ranges:
CS 2500 to CS 7999, but not CS 5010
IS 2000 to IS 7999, but not IS 4900
DS 2000 to DS 7999, but not DS 4900

## Presentation Requirement

THTR 1170 The Eloquent Presenter 1

## Sociology Courses

| Code | Title | Hours |
| :--- | :--- | ---: |
| Sociology Required Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |

Sociology Electives
Complete three Sociology electives from the following ranges:
Sociology Elective A: Complete one course from SOCL 1000 to 1999.

Sociology Elective B: Complete one course from SOCL 2000 to 3999.

Sociology Elective C: Complete one course from SOCL 4000 to 4999.

Sociology Required Capstone
SOCL 4600 Senior Seminar

## Integrative Course Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete one course from the following: | 4 |  |
| SOCL 1280 |  | The Twenty-First-Century Workplace |

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

| Computer Science English Requirement |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| College Writing |  |  |
| ENGW 1111 | First-Year Writing | 4 |
| or ENGW 1102 | First-Year Writing for Multilingual Writers |  |
| Advanced Writing in the Disciplines |  |  |
| Complete one cour | from the following: | 4 |
| ENGW 3302 | Advanced Writing in the Technical Professions |  |
| ENGW 3308 | Advanced Writing in the Social Sciences |  |
| ENGW 3315 | Interdisciplinary Advanced Writing in the Disciplines |  |
| Required General Electives |  |  |
| Code | Title | Hours |

Complete eight general electives.

## Major GPA Requirement

Minimum 2.000 GPA required in all CS and IS courses

## NUpath Requirements Satisfied

- Engaging with the Natural and Designed World
- Conducting Formal and Quantitative Reasoning
- Analyzing and Using Data
- Writing-Intensive in the Major
- Writing in the First Year
- Advanced Writing in the Disciplines
- Interpreting Culture
- Understanding Societies and Institutions
- Demonstrating Thought and Action in a Capstone

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

## Program Requirement

133 total semester hours required
Note: CCIS intentionally makes the total credits required one less than the sum of the credits to allow for a one credit waiver if needed.

## Plan of Study

Four Years, Two Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 CS 3200 | 4 Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 8 | 0 |

Year 2

| Fall | Hours | Spring | Hours | Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS 2800 and CS 2801 | 5 | CS Elective 1 | $4$ | ENGW 3302, 3308, or 3315 | 4 Co-op |  |
| CS 4800 | 4 | CS 1210 | 1 | Elective | 4 |  |
| SOCL 2321 | 4 | SOCL 2300 | 4 |  |  |  |
| ANTH 2305 |  | Sociology <br> Elective A | 4 |  |  |  |
|  |  | Elective | 4 |  |  |  |
|  | 17 |  | 17 |  | 8 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  | Sociology Elective B | 4 Elective | 4 |  |
|  | $\begin{aligned} & \text { SOCL 1280, } \\ & 3485,4528 \text {, } \\ & \text { or ANTH } \\ & 3418 \end{aligned}$ | 4 |  |  |
|  | Elective | 4 |  |  |
|  | THTR 1170 | 1 |  |  |
|  | 0 | 17 | 8 | 0 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours |
| :--- | :---: | :---: | ---: |
| Co-op | CS 4500, IS <br> 3500, or DS <br> 4200 | 4 Elective (if <br> needed) | 4 |
|  | SOCL 4600 | 4 Elective (if <br> needed) | 4 |
|  | Sociology <br> Elective C | 4 |  |
|  | 4 | 8 |  |
| 0 | 16 |  |  |

Total Hours: 134

## Four Years, Two Co-ops in Spring/Summer 1

Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 1800 <br> and CS 1801 | CS 2510 <br> and CS 2511 | 5 CS 3200 | 4 Vacation |  |
| CS 2500 <br> and CS 2501 | 5 IS 2000 | 4 CS 3500 | 4 |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 | 17 | 8 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 2800 | 5 Co-op | Co-op | ENGW 3302, | 4 |
| and CS 2801 |  |  | 3308, or |  |
|  |  |  | Elective | 4 |
| CS 4800 | 4 |  |  |  |
| CS 1210 | 1 |  |  |  |
| SOCL 2321 | 4 |  |  |  |



## Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| CS 1800 <br> and CS 1801 | V CS 2510 <br> and CS 2511 | 5 Vacation |  |  |
| CS 2500 <br> and CS 2501 | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  | 0 | 0 |
|  | 18 | 17 | 0 |  |

$\left.\begin{array}{lcccc}\text { Year 2 } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Fall } & 4 \text { CS 2800 } \\ \text { and CS 2801 } 3500 & 4 & 5 & \text { Vacation } & \text { Co-op }\end{array}\right]$

| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | CS Elective 1 | 4 ENGW 3302, | 4 Co-op |  |
|  |  | 3308, or |  |  |
|  |  | 3315 |  |  |
|  |  | 4 Elective | 4 |  |
|  | Sociology |  |  |  |
|  | Elective B |  |  |  |
|  |  |  |  |  |


|  |  | $\begin{aligned} & \text { SOCL 1280, } \\ & 3485,4528 \text {, } \\ & \text { or ANTH } \\ & 3418 \end{aligned}$ | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Elective | 4 |  |  |
|  |  | THTR 1170 | 1 |  |  |
|  | 0 |  | 17 | 8 | 0 |
| Year 4 |  |  |  |  |  |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op |  | CS Elective 2 | 4 Elective | 4 Co-op |  |
|  |  | Sociology <br> Elective C | 4 Elective | 4 |  |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 | 8 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Co-op |  | CS 4500, IS | 4 |  |  |
|  |  | 3500 , or DS |  |  |  |
|  |  |  |  |  |  |
|  |  | SOCL 4600 | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  |  | Elective | 4 |  |  |
|  | 0 |  | 16 |  |  |

Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| $\begin{aligned} & \text { CS } 1800 \\ & \text { and CS } 1801 \end{aligned}$ | $\begin{aligned} & 4 \text { CS } 2510 \\ & \text { and CS } 2511 \end{aligned}$ | 5 Vacation | Vacation |  |
| $\begin{aligned} & \text { CS } 2500 \\ & \text { and CS } 2501 \end{aligned}$ | 5 IS 2000 | 4 |  |  |
| CS 1200 | 1 SOCL 2320 | 4 |  |  |
| ENGW 1111 | 4 ANTH 1101 | 4 |  |  |
| SOCL 1101 | 4 |  |  |  |
|  | 18 | 17 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| CS 3500 | 4 Co-op | Co-op | Vacation |  |
| CS 4800 | 4 |  |  |  |
| CS 1210 | 1 |  |  | 0 |
| SOCL 2321 | 4 |  | 0 | 0 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| CS 2800 | 5 Co-op | Co-op | ENGW 3302, | 4 |
| and CS 2801 |  |  | 3308, or <br> 3315 |  |
|  |  |  | Elective | 4 |
| CS 3200 | 4 |  |  |  |
| SOCL 2300 | 4 |  |  |  |
| Sociology | 4 |  |  |  |
| Elective A |  |  |  |  |



## Year 5

| Fall | Hours Spring | Hours |
| :--- | :---: | :---: |
| CS Elective 2 | 4 CS 4500, IS |  |
|  | 3500, or DS <br> 4200 | 4 |
|  | 4 SOCL 4600 | 4 |
| Sociology | 4 Elective | 4 |
| Elective C | 4 Elective | 4 |
| Elective | 16 | 16 |
| Elective |  |  |
|  |  |  |

Total Hours: 134

## English and Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## English Requirements

## Code Title

Hours

## English Course-Level Requirement

In addition to the capstone, two of the courses chosen from
the lists below must be numbered ENGL 3000-ENGL 4999.

## Foundational Courses

ENGL 1400 Introduction to Literary Studies 4

ENGL 1700 Global Literature to 15004
ENGL 1160 Introduction to Rhetoric 4
or ENGL 1410 Introduction to Writing Studies

## Diversity

Complete one of the following courses. This course may also
be used to fulfill an additional English requirement below:

| ENGL 2296 | Early African-American Literature |
| :--- | :--- |
| ENGL 2360 | Modern African-American Literature |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and <br> Contemporary Jewish Literature |
| ENGL 2450 | Postcolonial Literature |
| ENGL 2460 | Multiethnic Literatures of the U.S. |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 3663 | The African-American Novel |

Pre-Nineteenth-Century Literature
Complete one of the following: 4
ENGL 1600 Introduction to Shakespeare
ENGL 2200 The Bible
ENGL 2210 Medieval British Literature
ENGL 2215 Shakespeare's Comedies
ENGL 2216 Shakespeare's Tragedies
ENGL 2230 Sixteenth-Century British Literature
ENGL 2240 Seventeenth-Century British Literature
ENGL 2250 Eighteenth-Century British Literature
ENGL 2295 Revolution and Revolt in Early American Literature

ENGL 2296 Early African-American Literature
ENGL 3151 Topics in Early Literatures Abroad
ENGL 3607 Chaucer
ENGL 3618 Milton
ENGL/JWSS 3678 Bedrooms and Battlefields: Hebrew Bible and the Origins of Sex, Gender, and Ethnicity
ENGL $4020 \quad$ Topics in 17th- and 18th-Century Literatures

## Nineteenth-Century Literature

Complete one of the following: 4

| ENGL 2260 | Romantic Poetry |
| :--- | :--- |
| ENGL 2270 | Victorian Literature |
| ENGL 2280 | Nineteenth-Century British Fiction |
| ENGL 2330 | The American Renaissance |
| ENGL 2340 | American Realism |
| ENGL 3619 | Emerson and Thoreau |
| ENGL 3720 | Nineteenth-Century Major Figure |
| ENGL 4040 | Topics in 19th-Century Literatures |

Twentieth- and Twenty-First-Century Literature
Complete one of the following:

| ENGL 2290 | Twentieth-Century British Literature |
| :--- | :--- |
| ENGL 2291 | Major Twentieth-Century British <br> Novelists |
| ENGL 2355 | Modern American Literature |
| ENGL 2360 | Modern African-American Literature |
| ENGL 2410 | Contemporary American Literature |
| ENGL 2440 | The Modern Bestseller |
| ENGL 2600 | Irish Literary Culture Abroad |


| ENGL/JWSS 2610 | Contemporary Israeli Literature and Art |
| :--- | :--- |
|  | Abroad |
| ENGL/JWSS 3685 | From Kafka to Kushner: Modern and |
|  | Contemporary Jewish Literature |


| ENGL 3488 | Film and Text |
| :--- | :--- |
| ENGL 3572 | Fantasy |
| ENGL 3582 | Children's Literature |
| ENGL 3663 | The African-American Novel |
| Writing |  |
| Complete one of the following: |  |
| ENGL 2700 | Creative Writing |
| ENGL 2710 | Style and Editing |
| ENGL 2740 | Writing and Community Engagement |
| ENGL 2760 | Writing in Global Contexts |
| ENGL 2770 | Writing to Heal |
| ENGL 3376 | Creative Nonfiction |
| ENGL 3377 | Poetry Workshop |
| ENGL 3378 | Fiction Workshop |
| ENGL 3375 | Writing Boston |
| ENGL 3379 | Nonfiction Workshop |
| ENGL 3380 | Topics in Writing |
| ENGL 3382 | Publishing in the 21st Century |
| Capstone |  |
| ENGL 4710 | Capstone Seminar |
| or ENGL 4720 | Capstone Project |

## Cultural Anthropology Requirements

Note: A 2.000 GPA is required in all cultural anthropology courses.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Foundation Courses |  | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| ANTH 3410 | Ethnographic Field Experience | 4 |
| ANTH 3421 | Foundations of Anthropological Theory |  |

## Area Courses

Additional "area courses" taken may count as anthropology electives.
Complete two of the following:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Capstone

Students are expected to complete the following course in spring of their senior year:
ANTH $4600 \quad$ Senior Seminar 4

Anthropology Electives
Complete three 4-semester-hour courses in addition to the 12
above requirements. One study-abroad course may also count toward this requirement with prior permission from the department.

## Integrative Requirements

## Code Title

Hours
One integrative course is required for each discipline. Courses taken as electives above may not be used as integrative courses.

## English Integrative Course

Complete one of the following:

| ENGL 2450 | Postcolonial Literature |
| :--- | :--- |
| ENGL 2470 | Asian-American Literature |
| ENGL 2480 | U.S. Latino/a Literature |
| ENGL 2490 | Native American Literature |
| ENGL 4684 | Topics in Postcolonial Literature |

Cultural Anthropology Integrative Courses
Complete one of the following:

| ANTH 2300 | Reading Culture through Ethnography |
| :--- | :--- |
| ANTH 3421 | Foundations of Anthropological Theory |

## English and Cultural Anthropology Combined-Major Credit Requirement

Complete 84 semester hours in the major.

## Program Requirement

128 total semester hours required

## Human Services and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

| Human Services Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| Policy |  |  |
| HUSV 3900 | Introduction to Social Policy | 4 |
| Research Methods |  |  |
| Complete option A or option B: |  | 4 |
| Option A |  |  |
| HUSV 3700 | Research Methods for Human Services |  |
| Option B |  |  |
| Complete the following and one additional HUSV course: |  |  |
| SOCL 2321 | Research Methods in Sociology |  |
| Organization |  |  |


| SOCL 3440 | Sociology of Human Service <br> Organizations |
| :--- | :--- |

## Human Services Internship

HUSV 4994 Human Services Internship ..... 6
Human Services Elective
Complete one additional HUSV course. ..... 4
Senior Capstone ${ }^{1}$
HUSV 4700 Senior Seminar in Human Services ..... 4
${ }^{1}$ With permission of human services, the student may complete sociology capstone Senior Seminar (SOCL 4600) and substitute one advanced human services elective for Senior Seminar in Human Services (HUSV 4700).

## Sociology Requirements

A grade of $C$ or higher is required in sociology requirements.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Sociology Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 3440 | Sociology of Human Service <br> Organizations | 4 |
| Introductory Electives | 8 |  |
| Complete two of the following: |  |  |


| SOCL 1120 | Society and Health |
| :--- | :--- |
| SOCL 1200 | Sociology of Alcoholism |
| SOCL 1220 | Sociology of Boston |
| SOCL 1225 | Aging in Society |
| SOCL 1228 | Social Problems |
| SOCL 1232 | American Society |
| SOCL 1235 | Social Psychology |
| SOCL 1241 | Sociology of Violence |
| SOCL 1245 | Sociology of Poverty |
| SOCL 1246 | Environment and Society |
| SOCL 1247 | Urban Social Problems |
| SOCL 1255 | Sociology of the Family |
| SOCL 1256 | Violence in the Family |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1275 | Social Stratification |
| SOCL 1283 | Globalization and Social Change |
| SOCL 1285 | Deviant Behavior and Social Control |
| SOCL 1287 | Sociology of Religion |
| SOCL 1290 | Juvenile Delinquency |
| SOCL 1295 | Drugs and Society |
| ANTH 1101 | Peoples and Cultures |

Intermediate-Level Elective
Complete one of the following:

| SOCL 2205 | Law and Social Justice |
| :--- | :--- |
| SOCL 2268 | Social Movements |
| SOCL 2270 | Race and Ethnic Relations |
| SOCL 2358 | Current Issues in Cities and Suburbs |
| SOCL 2450 | Class, Power, and Social Change |
| SOCL 3402 | Feminist Perspectives on Society |


| SOCL 3406 | Class, Crime, and the Legal System |
| :---: | :---: |
| SOCL 3407 | The Immigrant Experience: Ethnicity, Race, and Inequality in America |
| SOCL 3437 | Children and Youth in Contemporary Society |
| SOCL 3441 | Sociology of Health and Illness |
| SOCL 3451 | Privilege |
| SOCL 3455 | Seminar in Urban Sociology |
| SOCL 3460 | Sociology of Latino Society |
| SOCL 3470 | Social Conflict and Community Service |
| SOCL 3471 | Social Conflict and Community Services Abroad |
| SOCL 3487 | Applied Sociology: Practice and Theory |
| ANTH 2302 | Gender and Sexuality: A Cross-Cultural Perspective |
| ANTH 2305 | Global Markets and Local Culture |
| ANTH 2312 | The Anthropology of Masculinity |
| ANTH 2330 | Environmental Anthropology |
| ANTH 2350 | Urban Anthropology |
| ANTH 3417 | Political Anthropology |
| Advanced-Level Elective |  |
| Complete one of | ollowing: |


| SOCL 4514 | "The Wire" and the Study of Urban Inequalities |
| :---: | :---: |
| SOCL 4518 | Law and Social Issues |
| SOCL 4519 | Seminar in Social Psychology |
| SOCL 4520 | Race, Class, and Gender |
| SOCL 4522 | Political Ecology and Environmental Justice |
| SOCL 4521 | Ethnic, Racial, and Religious Identity |
| SOCL 4523 | Sexualities |
| SOCL 4530 | Seminar in the Family |
| SOCL 4580 | Special Topics in Sociology |
| ANTH 4350 | Ethnography of Southeast Asia |
| ANTH 4500 | Latin American Society and Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |
| ANTH 4580 | Special Topics in Anthropology |
| Senior Seminar ${ }^{1}$ |  |
| SOCL 4600 | Senior Seminar |

${ }^{1}$ With permission of the sociology head advisor, the student may complete human services capstone Senior Seminar in Human Services (HUSV 4700) and substitute one advanced sociology elective for Senior Seminar (SOCL 4600).

## Human Services/Sociology Integrative Course <br> Code <br> Title <br> HUSV 2350 <br> Ethnic Relations, Cultural Identity, and Human Services

Hours

## Human Services and Sociology Combined-Major Credit Requirement

Complete 60 semester hours in the major.

## Program Requirement

128 total semester hours required

## International Affairs and Cultural Anthropology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## International Affairs Requirements

| Code | Title | Hours |
| :--- | :--- | :---: |
| Required Courses |  |  |
| INTL 1101 | Globalization and International Affairs | 4 |
| INTL 3400 | International Conflict and Negotiation | 4 |
| POLS 1160 | International Relations | 4 |
| ECON 1115 | Principles of Macroeconomics | 4 |

or HIST 2211 The World Since 1945
Global Dynamics
Complete two of the following: ${ }^{1}$ 6-8

| INTL 1185 | Gender in the African Diaspora |
| :--- | :--- |
| or AFRS 1185 | Gender in the African Diaspora |
| INTL 2240 | Global Population and Development |
| INTL 2300 | Religion in International Affairs |
| INTL 2400 | Politics of Islam and Gender |
| INTL 2480 | Women and World Politics |
| or WMNS 2480 |  |


| ANTH 2305 | Global Markets and Local Culture |
| :---: | :---: |
| ANTH 2315 | Religion and Modernity |
| ANTH 2350 | Urban Anthropology |
| ANTH 3415 | Anthropology of Travel and Tourism |
| COMM 2303 | Global and Intercultural Communication |
| MSCR 2325 | Global Media |
| COMM 5240 | Global and Intercultural Media |
| CLTR 1515 | Comparative Analysis of the Lusophone World and Culture |
| CRIM 4630 | Political Crime and Terrorism |
| ECON 1290 | History of the Global Economy |
| ECON 1291 | Development Economics |
| ECON 3404 | International Food Economics and Policy |
| ECON 4635 | International Economics |
| ENGL 2450 | Postcolonial Literature |
| ENTR 2206 | Global Social Enterprise |
| ENTR 3306 | Global Entrepreneurship |
| ENVR 1110 | Global Climate Change |
| ENVR 4515 | Sustainable Development |
| HIST 1110 | Introduction to World History |
| HIST 1218 | Pirates, Planters, and Patriots: Making the Americas, 1492-1804 |
| HIST 2211 | The World Since 1945 |
| HIST 2214 | War in the Modern World |
| HIST 2311 | Colonialism/Imperialism |
| HIST 2312 | Global Migration |
| HIST 2315 | Approaches to World History |
| HIST 2317 | Comparative Urban Histories |
| HIST 2398 | Radicals, Terrorists, and Insurgents |
| HIST 3412 | Global Environmental History |
| HIST 3452 | Global Chinese Migration |
| HUSV 4920 | International Human Services |
| INTB 1203 <br> or INTB 1209 | International Business and Global <br> Social Responsibility <br> International Business and Global Social <br> Responsibility |
| INTB 3310 | Cultural Aspects of International Business |
| JRNL 3300 <br> or INTL 3300 | Covering Conflicts: Peace, War, and the Media <br> Covering Conflicts: Peace, War, and the Media |
| JRNL 5360 | Global Reporting |
| LPSC 2302 | Global Human Rights: A Social and Economic Perspective |
| MUSC 1127 | Introduction to World Music |
| MUSC 1140 | Global Pop Music |
| PHIL 1155 | Introduction to Human Rights |
| PHIL 2302 | Philosophical Problems of War and Peace |
| PHIL 5001 | Global Justice |
| PHIL 5003 | Ethics, Justice, and Global Climate Change |
| PHTH 5230 | Global Health |
| POLS 1155 | Comparative Politics |


| POLS 1160 | International Relations |
| :--- | :--- |
| POLS 2370 | Religion and Politics |
| POLS 3405 | International Political Economy |
| POLS 3406 | International Law |
| POLS 3407 | International Organizations |
| POLS 3408 | International Security |
| POLS 3410 | Nontraditional Security Issues |
| POLS 3415 | Ethnic Political Violence |
| POLS 3420 | U.S. National Security Policy |
| POLS 3430 | Revolution, Civil War, and Insurrection |
| POLS 3487 | Politics of Developing Nations |
| POLS 3490 | Democracy in Comparative Politics |
| POLS 4910 | Model United Nations |
| POLS 4918 | Model NATO |
| POLS 4938 | Dialogue of Civilizations: International <br> Politics Abroad |
| PHIL 1270 | Judaism, Christianity, and Islam: <br> Abrahamic Religions |
| PHIL 1271 | Sex in Judaism, Christianity, and Islam <br> PHIL 1272Ethics in the World's Religions <br> SOCL 1246Environment and Society <br> GOCL 1283Globalization and Social Change <br> SOCL 3465 <br> Gumaration and the Evolution of <br> SOCL 3471Social Conflict and Community <br> Services Abroad |
| POCL 4522 | Political Ecology and Environmental <br> Justice |

## International Experiential Learning

Complete at least one "international semester" via study abroad, international internship, international co-op, or two approved short-term programs abroad.
${ }^{1}$ Courses used to fulfill major requirements may not be used to satisfy the global dynamics requirement. Global Markets and Local Culture (ANTH 2305) and International Relations (POLS 1160) may not be used as global dynamics courses. See department for additional courses.

## Regional Analysis Requirement

Complete two regional analysis courses, both of which must be in one region, from the following lists. Select courses taken during a semester study abroad or specific Dialogue of Civilizations courses may count as regional analysis courses pending approval of the international affairs head faculty advisor. See department for additional courses:

| Code | Title | Hours |
| :--- | :--- | ---: |
| Africa |  | 4 |
| AFRS 1128 | The African Experience through Music | 4 |
| AFRS 2307 | Africa Today | 4 |
| AFRS 2465 | The Scope and Dynamics of Conflicts in | 4 |
|  | Africa | 4 |
| AFRS 2900 | Swahili, Culture, and Politics in Kenya | 4 |
| AFRS 3460 | Contemporary Government and Politics <br> in Africa | 4 |
| AFRS 4939 | Community Health, Culture, and <br> Development in Kenya | 4 |
| AFRS 3645 | National Model African Union | 4 |


| ANTH 4510 | Anthropology of Africa | 4 | POLS 4917 | Model European Union | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| or INTL 4510 | Anthropology of Africa |  | SOCL 4535 | European Union: Social and Political | 4 |
| ENTR 3306 | Global Entrepreneurship | 4 | Latin America |  |  |
| ENTR 3308 | Business Economic History of South Africa | 4 | AFAM 2301 | Foundations of Black Culture 2 | 4 |
|  |  |  | AFAM 2345 | The Black Experience in the Caribbean | 4 |
| HIST 1180 | African History | 4 | AFAM 4507 | Afro-Cuban Culture-International Study | 4 |
| HIST 2390 | Africa and the World in Early Times | 4 | ANTH 4500 | Latin American Society and Development | 4 |
| HIST 2397 | Modern Africa | 4 |  |  |  |
| MUSC 1128 | Music of Africa | 4 | or INTL 4500 | Latin American Society and Development |  |
| Asia |  |  | CLTR 1505 | Introduction to Latin American Culture | 4 |
| ANTH 4350 | Ethnography of Southeast Asia | 4 | CLTR 1508 | Cuban History and Culture through Film | 4 |
| or INTL 4350 | Ethnography of Southeast Asia |  | CLTR 1509 | An Introduction to Afro-Cuban Culture | 4 |
| ASNS 1150 | East Asian Studies | 4 | CLTR 1240 | Latin American Film | 4 |
| ASNS 4910 | Issues in Modern and Contemporary Asia | 4 | CLTR 4507 | Afro-Cuban Culture-International Study | 4 |
|  |  |  | CLTR 4508 | Cuban History through FilmInternational Study | 4 |
| CLTR 1500 | Modern Chinese History and Culture | 4 |  |  |  |
| CLTR 1506 | Introduction to Chinese Popular Culture | 4 | ENTR 3316 | Microfinance and Economic Development in Latin America | 4 |
| CLTR 1700 | Introduction to Japanese Pop Culture | 4 |  |  |  |
| CLTR 2501 | Chinese Film: Gender and Ethnicity | 4 | ENTR 3318 | Business, Economics, and History of Hispaniola and Latin America | 4 |
| HIST 1189 | Introduction to South Asian History | 4 |  |  |  |
| HIST 1252 | Japanese Literature and Culture | 4 | ENTR 3326 | Sustainability in the Latin American Business Environment | 4 |
| HIST 1253 | History of Vietnam Wars | 4 |  |  |  |
| HIST 1254 | Mao's China and After | 4 | ENVR 2942 | Maritime History and Culture: The Caribbean | 4 |
| HIST 1500 | Modern Chinese History and Culture | 4 | HIST 1187 | Introduction to Latin American History | 4 |
| HIST 2351 | Modern Japan | 4 | HIST 1260 | Modern Latin America | 4 |
| HIST 2352 | Dictators and Democracy in Japan and Korea | 4 | LACS 1220 | Latino, Latin American, and Caribbean Studies | 4 |
| HIST 3452 | Global Chinese Migration | 4 | LITR 1260 | Caribbean Literature and Culture | 4 |
| HIST 4942 | East Asian Cultural History Abroad | 4 | LITR 4655 | Latin American Literature | 4 |
| POLS 3485 | China: Governance and Foreign Policy | 4 | POLS 3475 | Government and Politics in Latin America | 4 |
| PHIL 1275 | Hinduism, Buddhism, and Beyond: Eastern Religions | 4 |  |  |  |
| PHIL 1290 | Chinese Philosophy and Religion | 4 | Middle East | Middle East Studies | 4 |
| PHIL 2394 | Chinese Buddhism | 4 | NTL1160 | Modern Israel | 4 |
| PHIL 2395 | Japanese Buddhism | 4 | INTL 2200 | America and the Middle East | 4 |
| PHIL 4545 | Religion and Politics in South Asia | 4 | INTL 2360 | Human Rights in the Middle East | 4 |
| Europe |  |  | INTL 2400 | Politics of Islam and Gender | 4 |
| CLTR 1501 | Introduction to French Culture | 4 | INTL 3250 | Democracy and Development in North | 4 |
| CLTR 1503 | Introduction to Italian Culture | 4 |  | Africa and the Mediterranean |  |
| CLTR 1504 | Introduction to Spanish Culture | 4 | CLTR 1502 | Introduction to Arabic Culture | 4 |
| CLTR 2280 | French Film and World War II: The | 4 | ECON 1292 | Economic History of the Middle East | 4 |
|  | German Occupation of France |  | HIST 1185 | Introduction to Middle Eastern History | 4 |
| ECON 1293 | European Economic History | 4 | HIST 1290 | Modern Middle East | 4 |
| HIST 1170 | Europe: Empires, Revolutions, Wars, and Their Aftermath | 4 | HIST 4944 | Middle Eastern History and Culture Independent Field Research Abroad | 4 |
| HIST 1270 | Ancient Greece | 4 | HIST 4945 | North African History Abroad | 4 |
| HIST 1271 | Ancient Rome | 4 | JWSS 2500 | Zionism and the Challenges of Jewish | 4 |
| HIST 2280 | Hitler, Germany, and the Holocaust | 4 |  | Statehood |  |
| HIST 2371 | Europe 1870-1921 | 4 | POLS 3465 | Government and Politics in the Middle | 4 |
| HIST 2372 | Gender and Society in Modern Europe | 4 |  | East |  |
| HIST 2376 | The British Empire | 4 | POLS 3470 | Arab-Israeli Conflict | 4 |
| HIST 4946 | Independent Field Research Abroad: Central Europe | 4 | POLS 4915 | Model Arab League | 4 |
|  |  |  | PHIL 1270 | Judaism, Christianity, and Islam: Abrahamic Religions | 4 |
| POLS 3435 | Politics and Governance of Europe and | 4 |  |  |  |


| PHIL 1280 | Encountering Islam: Traditions, <br> Debates, and Crosscultural Diversity | 4 |
| :--- | :--- | :--- |
| PHIL 1285 | Jewish Religion and Culture | 4 |
| PHIL 1287 | Modern Judaism | 4 |
| Russia |  | 4 |
| HIST 1285 | Introduction to Russian Civilization | 4 |
| HIST 1286 | History of the Soviet Union | 4 |
| HIST 2386 | History of Soviet Cinema | 4 |
| HIST 3486 | Commissars and Managers: Soviet | 4 |
|  | Economic History | 4 |
| LITR 3503 | Russian Literature in Translation | 4 |
| POLS 3450 | Government and Politics in Russia | 4 |
| POLS 3455 | Russian Foreign Policy | 4 |
| SOCL 1215 | Society and Culture in Russia | 4 |
| or INTL 1215 | Society and Culture in Russia |  |

## International Affairs Foreign Language Requirement

Complete course work in a language through at least intermediatelevel two. Note: Completing this requirement satisfies the language requirement for the BA degree.

## Anthropology Major Requirements

Code Title Hours

## Cultural Anthropology

A grade of $C$ or higher is required:

| ANTH 1101 | Peoples and Cultures | 4 |
| :--- | :--- | :--- |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |
| ANTH 3410 | Ethnographic Field Experience | 4 |

Anthropology Electives
Complete three courses from the following range, one of
which must be numbered 4000 or above. One study-abroad
course may also count toward this requirement with prior permission from the department:

ANTH 2300 to ANTH 4999

## Advanced Area Courses

Complete two of the following. A grade of C or higher is required:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Integrative Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Global Markets |  |  |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Capstone |  | 4 |
| ANTH 4600 | Senior Seminar |  |
| or INTL 4700 |  | Senior Capstone Seminar in International Affairs |

Students taking Senior Seminar (ANTH 4600) must complete either a one-semester senior project, which they would do in the context of ANTH 4600, or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## International Affairs and Anthropology Combined-Major Credit Requirement

Complete 80 semester hours in the major.

## Program Requirement

128 total semester hours required

Media and Screen Studies and Sociology, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

Media and Screen Studies Requirements
Code Title Hours

Introduction to College

| MSCR 1000 | Media and Screen Studies at <br> Northeastern | 1 |
| :--- | :--- | :--- |

Introduction to Media Studies
MSCR 1220 Media, Culture, and Society 4

Introduction to Screen Theory
MSCR $2220 \quad$ Understanding Media and Film 4
Advanced Theory
MSCR 4623 Theories of Media and Culture 4
Media and Screen Electives
Complete four of the following: 16

| MSCR 1230 | Introduction to Film Production |
| :--- | :--- |
| MSCR 1310 | Introduction to Digital Media Culture |
| MSCR 2302 | Advertising and Promotional Culture |
| MSCR 2325 | Global Media |
| MSCR 2500 | Digital Media Research |
| MSCR 2895 | Film Analysis |
| MSCR 3210 | Special Topics in Media and Screen |
| MSCR 3300 | Studies |
| MSCR 3402 | Television Activism |
| MSCR 3422 | Media Audiences |
| MSCR 3423 | Twentieth-Century Media |
| MSCR 3426 | Popular Music as Media Form |
| MSCR 3428 | Television Studies |
| MSCR 3435 | Media Industries |
| MSCR 3437 | Media and Identity |


| MSCR 3438 | Celebrity Culture |  |
| :---: | :---: | :---: |
| MSCR 3500 | Documentary Storytelling |  |
| CINE 2160 | Narrative Filmmaking |  |
| CINE 2350 | History of Film |  |
| CINE 2394 | Modern Film and Global Culture |  |
| CINE 3389 | Screenwriting |  |
| CINE 3392 | Gender and Film |  |
| CINE 3446 | Topics in Documentary Production |  |
| CINE 3900 | Film and Psychoanalysis |  |
| CINE 3920 | Topics in Film Studies |  |
| ARTD 3480 | Video: Sound and Image |  |
| ARTD 3485 | Video Art |  |
| ARTH 2212 | Survey of the Still and Moving Image |  |
| Advanced Media and Screen Electives |  |  |
| Complete two of the following: |  | 8 |
| MSCR 4206 | Age, Media, and Representation |  |
| MSCR 4208 | TV History |  |
| MSCR 4602 | Media and Democracy |  |
| MSCR 4610 | The Networked Self |  |
| MSCR 4622 | Special Topics in Media and Screen Studies |  |
| MSCR 4685 | Interactive Documentary |  |
| MSCR 4970 | Junior/Senior Honors Project 1 |  |
| MSCR 4971 | Junior/Senior Honors Project 2 |  |
| MSCR 4991 | Research |  |
| MSCR 4992 | Directed Study |  |
| MSCR 4993 | Independent Study |  |
| MSCR 4996 | Experiential Education Directed Study |  |
| CINE 3500 | Film Theory |  |
| CINE 4500 | Modernism/Modernity and Film |  |
| CINE 4550 | Cinema Studies Seminar |  |
| CINE 4560 | Directing the Short Fiction Film |  |
| ARTD 4582 |  |  |
| ARTD 4682 | Video in Context: Video and Social Change |  |

## Sociology Requirements

| Code | Title | Hours |
| :--- | :--- | ---: |
| Core Courses in Sociology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| SOCL 4600 | Senior Seminar | 4 |

Foundational Competency-Courses Numbered SOCL 1200 to SOCL 2900
Complete two of the following:

| SOCL 1228 | Social Problems |
| :--- | :--- |
| SOCL 1232 | American Society |
| SOCL 1245 | Sociology of Poverty |
| SOCL 1260 | Gender in a Changing Society |
| SOCL 1275 | Social Stratification |
| SOCL 1280 | The Twenty-First-Century Workplace |


| SOCL 1297 | Sociology of Popular Culture |  |
| :---: | :---: | :---: |
| SOCL 2205 | Law and Social Justice |  |
| SOCL 2268 | Social Movements |  |
| SOCL 2270 | Race and Ethnic Relations |  |
| SOCL 2450 | Class, Power, and Social Change |  |
| Foundational Competency-Courses Numbered 3000 to 4999 |  |  |
| Complete one of the following: |  | 4 |
| ANTH 3120 | Consumer Cultures |  |
| ANTH 3418 | Wired/Unwired: Cybercultures and Technopolitics |  |
| ANTH 4580 | Special Topics in Anthropology |  |
| SOCL 3460 | Sociology of Latino Society |  |
| SOCL 3465 | Globalization and the Evolution of Human Societies |  |
| SOCL 4518 | Law and Social Issues |  |
| SOCL 4520 | Race, Class, and Gender |  |
| SOCL 4522 | Political Ecology and Environmental Justice |  |
| SOCL 4580 | Special Topics in Sociology |  |
| SOCL 4996 | Experiential Education Directed Study |  |

## Integrative Requirement

| Code | Title | Hours |
| :--- | :--- | ---: |
| Integrative Courses |  | 4 |
| MSCR 3437 | Media and Identity | 4 |
| SOCL 1246 | Environment and Society | 4 |

## Media and Screen Studies Grade Requirement

For media and screen studies, 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: Media, Culture, and Society (MSCR 1220) and Understanding Media and Film (MSCR 2220).

## Program Requirement

128 total semester hours required

## Sociology and Political Science, BA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Requirements for BA

All undergraduate students are required to complete the BA language requirements (p. 37).


| POLS 2360 | Politics of Poverty |  |
| :---: | :---: | :---: |
| POLS 2368 | Music and Politics |  |
| POLS 2370 | Religion and Politics |  |
| POLS 2375 | Gender and Politics |  |
| POLS 2380 | Latino Politics in the United States |  |
| POLS 3309 | Lesbian, Gay, Bisexual, and Transgender Issues in Public Policy |  |
| POLS 3320 | Politics and Mass Media |  |
| POLS 3324 | Law and Society |  |
| CONCENTRATION IN PUBLIC POLICY |  |  |
| Code | Title | Hours |
| Core Requirement |  |  |
| POLS 3307 | Public Policy and Administration | 4 |
| Electives |  |  |
| Complete three of the | following: | 12 |
| POLS 2334 | Bureaucracy and Government Organizations |  |
| POLS 2335 | Budgeting and Taxation |  |
| POLS 2340 | Business and Government |  |
| POLS 2345 | Urban Policies and Politics |  |
| POLS 2350 | State and Local Politics |  |
| POLS 2357 | Growth and Decline of Cities and Suburbs |  |
| POLS 2385 | U.S. Health and Welfare Policy |  |
| POLS 2390 | Science, Technology, and Public Policy |  |
| POLS 2395 | Environmental Politics and Policy |  |
| POLS 3315 | Interest Groups and Public Policy |  |
| POLS 3402 | Survey Research and Polling |  |
| POLS 3410 | Nontraditional Security Issues |  |
| POLS 3412 | Homeland Security Policy and Politics |  |
| POLS 3425 | U.S. Foreign Policy |  |
| POLS 4948 | Community-Based Research Practicum |  |

## Sociology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Sociology Major Requirements

Courses in the major require a grade of C or higher

## Required Sociology

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :--- |
| SOCL 2300 | Social Theory | 4 |


| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| :--- | :--- | :---: |
| SOCL 2321 | Research Methods in Sociology | 4 |
| Cultural Anthropology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Senior Seminar |  | 4 |
| SOCL 4600 | Senior Seminar |  |

## Required Sociology Electives

Introductory-Level Electives
Complete two courses from the following range: 8
SOCL 1100 to SOCL 1999
Intermediate-Level Electives
Complete three courses from the following range: 12
SOCL 2000 to SOCL 3999
Elective in Social Change
Complete one of the following:

| SOCL 1260 | Gender in a Changing Society |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 2268 | Social Movements |
| SOCL 2450 | Class, Power, and Social Change |

Elective in Social Inequality
Complete one of the following: 4

| SOCL 1245 | Sociology of Poverty |
| :--- | :--- |
| SOCL 1275 | Social Stratification |
| SOCL 2205 | Law and Social Justice |
| SOCL 2270 | Race and Ethnic Relations |

## Advanced-Level Electives

Complete two courses from the following range:
SOCL 4000 to SOCL 4999
Social Science Electives
Complete six social science courses from the following
subject areas: AFRS, AFAM, ANTH, CRIM, ECON, HUSV, HIST,
INTL, LING, LPSC, POLS, or PSYC.
The following course may also be used as a social science elective:

WMNS $3441 \quad$ Topics in Women's, Gender, and Sexuality Studies

## Sociology Experiential Learning Requirement

Complete one of the following courses or a study abroad or a
co-op:

| SOCL 3470 | Social Conflict and Community Service |
| :--- | :--- |
| SOCL 3487 | Applied Sociology: Practice and Theory |
| SOCL 4971 | Junior/Senior Honors Project 2 |
| SOCL 4996 | Experiential Education Directed Study |
| SOCL 3488 | Doing Sociology in the City Abroad |

## Sociology Major Credit Requirement

Complete 68 semester hours in the major.

## Program Requirement

128 total semester hours required

| Plan of Study |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Five Years, Three Co-ops in Summer 2/Fall |  |  |  |  |
| Year 1 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| SOCL 1000 | $\begin{aligned} & 1 \text { SOCL 1200- } \\ & \text { level elective } \end{aligned}$ | 4 Vacation | 0 Vacation | 0 |
| SOCL 1101 | $\begin{aligned} & 4 \text { SOCL 1200- } \\ & \text { level elective } \end{aligned}$ | 4 |  |  |
| ENGW 1111 | 4 Elective | 4 |  |  |
| MATH 1215 | 4 Elective | 4 |  |  |
| ANTH 1101 | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

## Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 2300 | 4 SOCL 1200- <br> level elective | 4 Vacation | 0 Co-op | 0 |
| SOCL 2320 | 4 SOCL 2321 | 4 |  |  |
| Elective | 4 SOCL <br> intermediate- <br> level elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |


| Year 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | 0 ENGW 3315 | 4 Social science elective | 4 Co-op | 0 |
|  | SOCL <br> intermediatelevel elective | 4 Social science elective | 4 |  |
|  | SOCL <br> intermediate- <br> level elective | 4 |  |  |
|  | Social science elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |



| Year 5 |  |  |  |
| :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours |
| Co-op |  | SOCL <br> advanced- <br> level elective | 4 |
|  |  | Elective | 4 |
|  |  | Social science elective | 4 |
|  |  | SOCL 4600 | 4 |
| 16 |  |  |  |

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| SOCL 1000 |  | SOCL 1200level elective | 4 Vacation | 0 Vacation | 0 |
| SOCL 1101 |  | SOCL 1200level elective | 4 |  |  |
| ENGW 1111 | 4 | Elective | 4 |  |  |
| MATH 1215 | 4 | Elective | 4 |  |  |
| ANTH 1101 | 4 |  |  |  |  |
|  | 17 |  | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL 2300 | 4 Co-op | 0 Co-op | 0 SOCL 1200- <br> level elective | 4 |
| SOCL 2320 | 4 | SOCL <br> intermediate- <br> level elective | 4 |  |
| Social <br> science <br> elective | 4 |  |  |  |
| Elective | 4 |  |  | 8 |
| EESH 2000 | 1 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ENGW 3315 | 4 Co-op | 0 Co-op | 0 SOCL <br> intermediate- <br> level elective | 4 |
| SOCL 2321 | 4 |  | Elective | 4 |
| SOCL <br> intermediate- <br> level elective | 4 |  |  |  |
| Social <br> science <br> elective | 4 | 0 | 0 | 8 |

Year 4

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| SOCL | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| intermediate- <br> level elective |  |  |  |  |


| Social science elective | 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Elective | 4 |  |  |  |  |
| SOCL <br> intermediatelevel elective | 4 |  |  |  |  |
|  | 16 |  | 0 | 0 | 0 |
| Year 5 |  |  |  |  |  |
| Fall | Hours | Spring | Hours |  |  |
| Elective | 4 | SOCL 4600 | 4 |  |  |
| SOCL <br> advancedlevel elective | 4 | Social science elective | 4 |  |  |
| Social science elective | 4 | Elective | 4 |  |  |
| Social science elective |  | SOCL <br> advanced- <br> level elective | 4 |  |  |
| 16 |  |  | 16 |  |  |

Total Hours: 130

## Cultural Anthropology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Cultural Anthropology Major Requirements

Cultural Anthropology

| A grade of C or higher is required: ${ }^{1}$ |  |  |
| :--- | :--- | :--- |
| SOCL 1101 | Introduction to Sociology | 4 |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |
| ANTH 3410 | Ethnographic Field Experience | 4 |
| ANTH 4600 | Senior Seminar | 4 |

Advanced Area Courses
A grade of $C$ or higher is required. Additional courses taken in this section may be used as electives.
Complete two of the following:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br>  <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |

## ANTH $4515 \quad$ Culture and Politics in Modern India

## Anthropology Electives

Complete eight ANTH courses. Two study-abroad courses 32
may count toward this requirement with prior permission from the department.

## Social Science Electives

Complete three social science courses from the following subject areas. Social science electives may not include music or art: AFRS, AFAM, CRIM, ECON, HUSV, HIST, INTL, LING, LPSC, POLS, PSYC, or SOCL.
${ }^{1}$ Students must choose between a one-semester senior project, which they would complete in the context of Senior Seminar (ANTH 4600), or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## Cultural Anthropology Major Credit Requirement

Complete 88 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study

Five Years, Three Co-ops in Summer 2/Fall
Year 1

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 1000 | 1 SOCL 1101 | 4 Vacation | 0 Vacation | 0 |
| ANTH 1101 | 4 Anthropology <br> elective | 4 |  |  |
| Social <br> science <br> elective | 4 MATH 1215 | 4 |  |  |
| Elective | 4 ENGW 1111 | 4 |  | 0 |
| Elective | 4 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 2300 | 4 ANTH 2305 | 4 Vacation | 0 Co-op | 0 |
| Anthropology <br> elective | 4 Anthropology <br> elective | 4 |  |  |
| Social <br> science <br> elective | 4 Elective | 4 |  |  |
| Elective | 4 Social <br> science <br> elective | 4 |  |  |
|  | EESH 2000 | 1 | 17 | 0 |

Year 3
Fall Hours Spring Hours Summer 1 Hours Summer 2 Hours

## Co-op

| Anthropology <br> elective | 4 ENGW 3315 | 4 |
| :--- | :--- | :--- |
| Social <br> science <br> elective | 4 |  |



| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :---: | :---: | :---: | :---: | :---: |
| Co-op | 0 Anthropology elective | 4 Social science elective | 4 Co-op | 0 |
|  | Anthropology elective | 4 Elective | 4 |  |
|  | Advanced area ANTH 4500-ANTH 4515 | 4 |  |  |
|  | Elective | 4 |  |  |
|  | 0 | 16 | 8 | 0 |

Year 5
$\left.\begin{array}{lcc}\text { Fall } & \text { Hours Spring } & \text { Hours } \\ \text { Co-op } & 0 \text { ANTH 4600 } & 4 \\ & \text { Anthropology } & 4 \\ \text { elective }\end{array}\right]$

Total Hours: 130

## Five Years, Three Co-ops in Spring/Summer 1

| Year 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| ANTH 1000 | 1 SOCL 1101 | 4 Vacation | 0 Vacation | 0 |
| ANTH 1101 | 4 Anthropology elective | 4 |  |  |
| Social science elective | 4 ENGW 1111 | 4 |  |  |
| Elective | 4 MATH 1215 | 4 |  |  |
| Elective | 4 |  |  |  |
|  | 17 | 16 | 0 | 0 |

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 2300 | 4 Co-op | 0 Co-op | 0 Anthropology <br> elective | 4 |
| Anthropology <br> elective | 4 | Social <br> science <br> elective | 4 |  |
| Social <br> science <br> elective | 4 |  |  |  |
| Elective | 4 | 0 | 0 | 8 |

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | ---: |
| ANTH 2305 | 4 Co-op | 0 Co-op | 0 Anthropology <br> elective | 4 |
| Anthropology <br> elective | 4 |  | ENGW 3315 |  |


| Social science elective | 4 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Elective | 4 |  |  |  |
| EESH 2000 | 1 |  |  |  |
|  | 17 | 0 | 0 | 8 |
| Year 4 |  |  |  |  |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Anthropology elective | 4 Co-op | 0 Co-op | 0 Vacation | 0 |
| Elective | 4 |  |  |  |
| Advanced area ANTH 4500-ANTH 4515 | 4 |  |  |  |
| Elective | 4 |  |  |  |
|  | 16 | 0 | 0 | 0 |

Year 5

| Fall | Hours Spring | Hours |
| :---: | :---: | :---: |
| Advanced area ANTH | 4 ANTH 4600 | 4 |
| 4500-ANTH |  |  |
| 4515 |  |  |
| Social science elective | 4 Social science elective | 4 |
| Anthropology elective | 4 Anthropology elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |
| Total Hours: 130 |  |  |

## Sociology and Cultural Anthropology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Sociology Major Requirements

## Required Sociology

A grade of C or higher is required:
SOCL 1101 Introduction to Sociology 4

SOCL 2300 Social Theory 4
SOCL 2321 Research Methods in Sociology 4

## Sociology Electives

A grade of C - or higher is required in sociology electives.
Introductory Electives

| Complete two courses in the following range: |  | 8 |
| :---: | :---: | :---: |
| SOCL 1110 to SOCL 1999 |  |  |
| Intermediate Elective |  |  |
| Complete one | in the following range: | 4 |
| SOCL 2000 to SOCL 3999 |  |  |
| Advanced Elective |  |  |
| Complete one | in the following range: | 4 |
| SOCL 4000 to SOCL 4999 |  |  |
| Experiential Learning |  |  |
| Complete one of the following courses, or complete a study abroad or a dialogue of civilizations: |  |  |
| SOCL 3470 | Social Conflict and Community Service |  |
| SOCL 3487 | Applied Sociology: Practice and Theory |  |
| SOCL 4996 | Experiential Education Directed Study |  |
| COOP 3945 | Co-op Work Experience |  |
| SOCL 4971 | Junior/Senior Honors Project 2 |  |

## Anthropology Major Requirements

| Cultural Anthropology Core Courses |  |  |
| :--- | :--- | :--- |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 3410 | Ethnographic Field Experience | 4 |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |

Advanced Area Courses
A grade of C or higher is required.
Complete two of the following:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## Anthropology Electives

Complete four ANTH courses. One study-abroad course may
also count toward this requirement with prior permission from the department.

## Integrative Requirement

Students must choose between a one-semester senior project, which they would complete in the context of Senior Seminar (ANTH 4600) or Senior Seminar (SOCL 4600), or a two-semester senior thesis, which would require them to also enroll in a fall-semester directed study.

## Required Course

| ANTH 2305 | Global Markets and Local Culture | 4 |
| :--- | :--- | :--- |
| Capstone |  | 4 |
| SOCL 4600 | Senior Seminar |  |
| or ANTH 4600 | Senior Seminar |  |

## Sociology and Cultural Anthropology Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Human Services and Sociology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

| Human Services Requirements |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Human Services Overview |  |  |
| HUSV 1101 | Human Services Professions | 4 |
| HUSV 2300 | Counseling in Human Services | 4 |
| HUSV 3570 | Strategic Philanthropy and Nonprofit Management | 4 |
| Policy |  |  |
| HUSV 3900 | Introduction to Social Policy | 4 |

## Research Methods

Complete option A or option B: 4

Option A

| HUSV 3700 | Research Methods for Human Services |  |
| :--- | :--- | :--- |
| Option B |  |  |
| Complete the following and one additional HUSV course: |  |  |
| SOCL 2321 | Research Methods in Sociology | 4 |
| Organization | Sociology of Human Service <br> SOCL 3440 | 4 |

## Human Services Internship

HUSV $4994 \quad$ Human Services Internship 6
Human Services Elective
Complete one additional HUSV course. 4

## Senior Capstone

Note: With permission of human services, the student may complete sociology capstone Senior Seminar (SOCL 4600) and substitute one advanced human services elective for Senior Seminar in Human Services (HUSV 4700).
HUSV $4700 \quad$ Senior Seminar in Human Services 4

## Sociology Requirements

A grade of $C$ or higher is required in sociology requirements.

| Code | Title | Hours |
| :--- | :--- | ---: |
| Required Sociology Courses |  |  |
| SOCL 1101 | Introduction to Sociology | 4 |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 3440 | Sociology of Human Service | 4 |


| Complete two of the following: |  | 8 |
| :---: | :---: | :---: |
| SOCL 1120 | Society and Health |  |
| SOCL 1200 | Sociology of Alcoholism |  |
| SOCL 1220 | Sociology of Boston |  |
| SOCL 1225 | Aging in Society |  |
| SOCL 1228 | Social Problems |  |
| SOCL 1232 | American Society |  |
| SOCL 1235 | Social Psychology |  |
| SOCL 1241 | Sociology of Violence |  |
| SOCL 1245 | Sociology of Poverty |  |
| SOCL 1246 | Environment and Society |  |
| SOCL 1247 | Urban Social Problems |  |
| SOCL 1255 | Sociology of the Family |  |
| SOCL 1256 | Violence in the Family |  |
| SOCL 1260 | Gender in a Changing Society |  |
| SOCL 1275 | Social Stratification |  |
| SOCL 1283 | Globalization and Social Change |  |
| SOCL 1285 | Deviant Behavior and Social Control |  |
| SOCL 1287 | Sociology of Religion |  |
| SOCL 1290 | Juvenile Delinquency |  |
| SOCL 1295 | Drugs and Society |  |
| ANTH 1101 | Peoples and Cultures |  |
| Intermediate-Level Elective |  |  |
| Complete one | following: | 4 |
| SOCL 2205 | Law and Social Justice |  |
| SOCL 2268 | Social Movements |  |
| SOCL 2270 | Race and Ethnic Relations |  |
| SOCL 2358 | Current Issues in Cities and Suburbs |  |
| SOCL 2450 | Class, Power, and Social Change |  |
| SOCL 3402 | Feminist Perspectives on Society |  |
| SOCL 3406 | Class, Crime, and the Legal System |  |
| SOCL 3407 | The Immigrant Experience: Ethnicity, Race, and Inequality in America |  |
| SOCL 3437 | Children and Youth in Contemporary Society |  |
| SOCL 3441 | Sociology of Health and Illness |  |
| SOCL 3451 | Privilege |  |
| SOCL 3455 | Seminar in Urban Sociology |  |
| SOCL 3460 | Sociology of Latino Society |  |
| SOCL 3470 | Social Conflict and Community Service |  |
| SOCL 3471 | Social Conflict and Community Services Abroad |  |
| SOCL 3487 | Applied Sociology: Practice and Theory |  |
| ANTH 2302 | Gender and Sexuality: A Cross-Cultural Perspective |  |
| ANTH 2305 | Global Markets and Local Culture |  |
| ANTH 2312 | The Anthropology of Masculinity |  |
| ANTH 2315 | Religion and Modernity |  |
| ANTH 2330 | Environmental Anthropology |  |
| ANTH 2350 | Urban Anthropology |  |
| ANTH 3417 | Political Anthropology |  |
| Advanced-Level Elective |  |  |
| Complete one of the following: |  | 4 |

Complete one of the following: 4

| SOCL 4514 | "The Wire" and the Study of Urban <br> Inequalities |
| :--- | :--- |
| SOCL 4518 | Law and Social Issues |
| SOCL 4519 | Seminar in Social Psychology |
| SOCL 4520 | Race, Class, and Gender |
| SOCL 4522 | Political Ecology and Environmental <br> Justice |
| SOCL 4521 | Ethnic, Racial, and Religious Identity |
| SOCL 4523 | Sexualities |
| SOCL 4530 | Seminar in the Family |
| SOCL 4580 | Special Topics in Sociology |
| ANTH 4350 | Ethnography of Southeast Asia |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |
| ANTH 4580 | Special Topics in Anthropology |

## Senior Seminar

Note: With permission of the sociology head advisor, the student may complete human services capstone HUSV 4700 and substitute one advanced sociology elective for SOCL 4600.

SOCL 4600
Senior Seminar
4

## Human Services/Sociology Integrative Course Code Title Hours

HUSV 2350 Ethnic Relations, Cultural Identity, and 4

## Human Services and Sociology Combined-Major Credit Requirement

Complete 60 semester hours in the major.

## Program Requirement

128 total semester hours required

## Linguistics and Cultural Anthropology, BS

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

## Linguistics Major Language Requirement

Complete two courses in the same language with a grade of C or higher. Proficiency at elementary level 2 or higher is required.

## Linguistics Combined-Major Requirements

Note: A grade of C or higher is required for all courses in this section.

| Code Title | Hours |
| :--- | :--- |
| Introductory Linguistics |  |


| LING 2350 | Linguistic Analysis | 4 |
| :--- | :--- | :--- |
| LING 3422 | Phonetics and Phonology | 4 |
| LING 3442 | Sociolinguistics | 4 |
| LING 3450 | Syntax | 4 |
| LING 3456 | Language and Gender | 4 |

## Linguistics Electives

Complete two of the following:

| DEAF 2700 | ASL Linguistics |
| :--- | :--- |
| LING 3402 | African-American English |
| LING 3424 | Morphology |
| LING 3428 | African Languages |
| LING 3430 | Applied Linguistics |
| LING 3432 | Romance Linguistics |


| LING 3434 | Bilingualism |
| :--- | :--- |
| LING 3436 | Structure of |


| LING 3436 | Structure of Spanish |
| :--- | :--- |
| LING 3438 | Structure of French |
| LING 3444 |  |

LING 3448 Issues in Linguistics

| LING 3452 | Semantics |
| :--- | :--- |
| LING 3454 | History of English |

LING $3458 \quad$ Topics in Linguistics

LING 3460 Historical Linguistics
LING 4654 Seminar in Linguistics
$\begin{array}{ll}\text { PHIL } 1215 & \text { Symbolic Logic } \\ \text { PHIL } 4540 & \text { Philosophy of Language }\end{array}$
PSYC $3464 \quad$ Psychology of Language
PSYC 4610 Laboratory in Psycholinguistics
PSYC 4658 Seminar in Psycholinguistics

| Linguistics Research |  |
| :--- | :--- |
| Complete one of the following: |  |
| LING 4891 | Research Seminar in Linguistics |
| LING 4991 | Directed Study Research |
| LING 4996 | Experiential Education Directed Study |
| LING 4970 | Junior/Senior Honors Project 1 <br> and LING 4971 <br> and Junior/Senior Honors Project 2 |

## Anthropology Combined-Major Requirements

| Note: A grade of C or higher is required for all courses in this section. |  |  |
| :--- | :--- | ---: |
| Code | Title | Hours |
| Cultural Anthropology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| ANTH 4600 | Senior Seminar | 4 |
| Anthropology Advanced Area Courses |  |  |
| Complete three of the following: | 12 |  |


| ANTH 4500 | Latin American Society and <br> Development |
| :--- | :--- |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |


| Anthropology Electives | 12 |
| :--- | :--- |
| Complete three ANTH courses. |  |


| Linguistics/Anthropology Integrative Requirement |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Integrative Course |  |  |
| LING 3412 | Language and Culture | 4 |

## Linguistics/Anthropology Combined-Major Credit Requirement

Complete 76 semester hours in the major.

## Program Requirement

128 total semester hours required

## Plan of Study <br> Five Years, Three Co-ops in Summer 2/Fall

| Year 1 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fall | Hours | Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| LING 1150 | 4 | LING 2350 | 4 Vacation | Vacation |  |
| ANTH 1101 | 4 | ANTH 2305 | 4 |  |  |
| ENGW 1111 | 4 | LING 3412 | 4 |  |  |
| MATH 1215 |  | Foreign Language course | 4 |  |  |
|  | 16 |  | 16 | 0 | 0 |

Year 2
$\left.\begin{array}{lcccc}\text { Fall } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { LING 3422 } & 4 \text { LING 3442 } & 4 & \text { Vacation } & \text { Co-op }\end{array}\right]$

Year 3

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| Co-op | LING 3456 | 4 Elective | 4 Co-op |  |
| Linguistics <br> elective | 4 Elective | 4 |  |  |
| Anthropology <br> elective | 4 |  |  |  |
| Elective | 4 | 8 | 0 |  |


| Year 4 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| Co-op | Linguistics <br> elective | 4 Elective | 4 Co-op |  |
|  |  |  |  |  |

ANTH $4350 \quad$ Ethnography of Southeast Asia

| Anthropology <br> Advanced <br> Area course | 4 Elective | 4 |  |
| :--- | :--- | :---: | :--- |
| Anthropology <br> Advanced <br> Area course | 4 |  |  |
| ENGW 3315 | 4 |  | 0 |
| 0 | 16 | 8 | 0 |

Year 5


Total Hours: 128

## Four Years, No Co-op

$\left.\begin{array}{lcccc}\text { Year 1 } & \text { Hours Spring } & \text { Hours Summer 1 } & \text { Hours Summer 2 } & \text { Hours } \\ \text { Fall } & \text { Vacation }\end{array}\right]$

Year 2

| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 | Hours |
| :--- | :---: | :---: | :---: | :---: |
| LING 3422 | 4 LING 3442 | 4 Vacation | Vacation |  |
| Foreign <br> Language <br> course | 4 LING 3450 | 4 |  |  |
| Anthropology <br> Elective | 4 <br> Anthropology <br> elective | 4 |  |  |
| Elective | 4 Elective | 4 | 0 | 0 |


| Year 3 |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: |
| Fall | Hours Spring | Hours Summer 1 | Hours Summer 2 |  |
| Vacation |  |  |  |  |$\quad$ Hours

## Year 4

| Fall | Hours Spring | Hours |
| :--- | ---: | ---: |
| Linguistics | 4 ANTH 4600 | 4 |
| Research |  |  |


| Anthropology <br> Advanced <br> Area course | 4 Linguistics <br> elective | 4 |
| :--- | :---: | :---: |
| Elective | 4 Elective | 4 |
| Elective | 4 Elective | 4 |
|  | 16 | 16 |

Total Hours: 128

## Sociology, BA/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## BA Language Requirements

All BA students are required to complete the BA language requirements (p. 37).

## Sociology Major Requirements

Courses in the major require a grade of C or higher.

## Required Sociology Courses

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :---: |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| Cultural Anthropology |  |  |
| ANTH 1101 | Peoples and Cultures | 4 |
| ANTH 2305 | Global Markets and Local Culture | 4 |
| Senior Seminar |  | 4 |
| SOCL 4600 | Senior Seminar |  |

## Required Sociology Electives

## Introductory-Level Electives

Complete one course in the following range: 4
SOCL 1100 to SOCL 1999
Intermediate-Level Electives
Complete two courses in the following range: 8
SOCL 2000 to SOCL 3999
Elective in Social Change
Complete one of the followiing:

| SOCL 1280 | The Twenty-First-Century Workplace |
| :--- | :--- |
| SOCL 2268 | Social Movements |
| SOCL 2450 | Class, Power, and Social Change |
| Elective in Social Inequality |  |
| Complete one of the following: |  |
| SOCL 1245 | Sociology of Poverty |
| SOCL 1275 | Social Stratification |
| SOCL 2205 | Law and Social Justice |
| SOCL 2270 | Race and Ethnic Relations |

Advanced-Level Elective
Complete one course in the following:

## SOCL 4000 to SOCL 4999

Social Science Electives
Complete four social science courses from the following subject areas: AFRS, AFAM, ANTH, CRIM, ECON, HUSV, HIST, INTL, LING, LPSC, POLS, or PSYC.
The following course may also be used as a social science elective:

WMNS 3441 Topics in Women's, Gender, and Sexuality Studies

## Sociology Experiential Learning Requirement

Complete one of the following courses or a study abroad or a co-op:

| SOCL 3470 | Social Conflict and Community Service |
| :--- | :--- |
| SOCL 3487 | Applied Sociology: Practice and Theory |
| SOCL 3488 | Doing Sociology in the City Abroad |
| SOCL 4971 | Junior/Senior Honors Project 2 |
| SOCL 4996 | Experiential Education Directed Study |

## Sociology Major Credit Requirement

Complete 68 semester hours in the major.

## Graduate Course Work to be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses
Graduate Sociology Requirements
Complete four courses in the following range: 16
SOCL 5000 to SOCL 7999

## Program Requirement

128 total semester hours required

## Sociology, BS/MA

## Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

## University-Wide Requirements

All undergraduate students are required to complete the University-Wide Requirements (p. 38).

## NUpath Requirements

All undergraduate students are required to complete the NUpath Requirements (p. 34).

Note: This curriculum reflects only course work to be taken as an undergraduate student. For additional course work to be taken as a graduate student, see the graduate program in the Northeastern University Graduate Catalog.

## Sociology Major Requirements

Courses in the major require a grade of $C$ or higher.

## Required Sociology Courses

| SOCL 1101 | Introduction to Sociology | 4 |
| :--- | :--- | :---: |
| SOCL 2300 | Social Theory | 4 |
| SOCL 2320 | Statistical Analysis in Sociology | 4 |
| SOCL 2321 | Research Methods in Sociology | 4 |
| Cultural Anthropology | Peoples and Cultures | 4 |
| ANTH 1101 | Global Markets and Local Culture | 4 |
| ANTH 2305 |  | 4 |

## Required Sociology Electives

Introductory-Level Electives
Complete two course in the following range: 8
SOCL 1100 to SOCL 1999
Intermediate-Level Electives
Complete three courses in the following range: 12
SOCL 2000 to SOCL 3999
Elective in Social Change
Complete one of the following:

| SOCL 1260 | Gender in a Changing Society |
| :--- | :--- |
| SOCL 1280 | The Twenty-First-Century Workplace |
| SOCL 2268 | Social Movements |
| SOCL 2450 | Class, Power, and Social Change |

Elective in Social Inequality
Complete one of the following:
SOCL 1245 Sociology of Poverty
SOCL 1275 Social Stratification
SOCL 2205 Law and Social Justice
SOCL 2270 Race and Ethnic Relations

## Advanced-Level Elective

Complete two courses in the following:
SOCL 4000 to SOCL 4999

## Social Science Electives

Complete six social science courses from the following subject areas: AFRS, AFAM, ANTH, CRIM, ECON, HUSV, HIST, INTL, LING, LPSC, POLS, or PSYC.
The following course may also be used as a social science elective:

| WMNS 3441 | Topics in Women's, Gender, and <br> Sexuality Studies |
| :--- | :--- |

## Sociology Experiential Learning Requirement

| SOCL 3470 | Social Conflict and Community Service |
| :--- | :--- |
| SOCL 3487 | Applied Sociology: Practice and Theory |
| SOCL 3488 | Doing Sociology in the City Abroad |
| SOCL 4971 | Junior/Senior Honors Project 2 |
| SOCL 4996 | Experiential Education Directed Study |

## Sociology Major Credit Requirement

Complete 88 semester hours in the major.

## Graduate Course Work to be Taken as an Undergraduate Student

Minimum 3.000 GPA required in all graduate courses

## Graduate Sociology Requirements

Complete four courses in the following range: 16 SOCL 5000 to SOCL 7999

## Program Requirement

128 total semester hours required

## Sociology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Introduction to Sociology

$$
\text { SOCL } 1101
$$

Introduction to Sociology

## Research Methods

An intermediate- or advanced-level elective may be substituted for Research Methods in Sociology (SOCL 2321) if taken for your major.
SOCL 2300 Social Theory ..... 4
or SOCL 2321 Research Methods in Sociology
Introductory-Level Required ElectivesComplete two courses from the following range:8
SOCL 1100 to SOCL 1299
Intermediate-/Advanced-Level Required Elective4
SOCL 3400 to SOCL 4599

## GPA Requirement

2.000 GPA required in the minor

## Cultural Anthropology, Minor

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

## Required Courses

| ANTH 1101 | Peoples and Cultures | 4 |
| :---: | :--- | :---: |
| ANTH 3421 | Foundations of Anthropological Theory | 4 |
| or ANTH 3410 | Ethnographic Field Experience |  |

## Anthropology Electives

Complete two ANTH courses.

## Advanced Area Courses

Complete one of the following:

| ANTH 4350 | Ethnography of Southeast Asia |
| :--- | :--- |
| ANTH 4500 | Latin American Society and <br> Development |
| ANTH 4505 | Native North Americans |
| ANTH 4510 | Anthropology of Africa |
| ANTH 4515 | Culture and Politics in Modern India |

## GPA Requirement

2.000 GPA required in the minor

## University Faculty

## A

Mehdi Abedi
Assistant Teaching Professor, Mechanical and Industrial Engineering; Northeastern University, PhD

## Kuzhikalail M. Abraham

Research Professor, Chemistry and Chemical Biology; Tufts University, PhD

## Max Abrahms

Assistant Professor, Political Science; University of California, Los Angeles, PhD

## Ali Abur

Professor, Electrical and Computer Engineering; Ohio State University, PhD

## Daniel Adams

Associate Professor, Architecture; Harvard University, MArch

## George G. Adams

College of Engineering Distinguished Professor, Mechanical and Industrial Engineering; University of California, Berkeley, PhD

## Jeffrey Agar

Associate Professor, Chemistry and Chemical Biology and
Pharmaceutical Sciences; University of Georgia, PhD
Rajesh Aggarwal
Professor, Finance; Harvard University, PhD

## Ruth Aguilera

Professor, International Business and Strategy; Harvard University, PhD

## Amal Ahmed

Assistant Professor, Computer and Information Science; Princeton University, PhD

## Sophia Ainslie

Lecturer, Art + Design; School of the Museum of Fine Arts/Tufts University, MFA

## M. Shahid Alam

Professor, Economics; University of Western Ontario (Canada), PhD

## Noor E. Alam

Assistant Professor, Mechanical and Industrial Engineering; University of Alberta (Canada), PhD

## Brian Albrecht

Assistant Cooperative Education Coordinator, College of Engineering; Carnegie Mellon University, MS

## Len Albright

Assistant Professor, Sociology and Anthropology and Public Policy and Urban Affairs; University of Chicago, PhD

Daniel P. Aldrich
Professor, Political Science and Public Policy and Urban Affairs; Harvard University, PhD

## Todd M. Alessandri

Associate Professor, International Business and Strategy; University of North Carolina, Chapel Hill, PhD

## Jacques Alexis

Assistant Academic Specialist, College of Professional Studies; University of Wisconsin, Platteville, MS

## Nicole N. Aljoe

Associate Professor, English; Tufts University, PhD

## Michael Allshouse

Assistant Professor, Mechanical and Industrial Engineering;
Massachusetts Institute of Technology, PhD

## Meryl Alper

Assistant Professor, Communication Studies; University of Southern California, PhD

Neil O. Alper
Associate Professor, Economics; University of Pittsburgh, PhD

## Akram N. Alshawabkeh

George A. Snell Professor of Engineering, Civil and Environmental Engineering; Louisiana State University, PhD

## Sari Altschuler

Visiting Assistant Professor, English; City University of New York, PhD

## George O. Alverson

Associate Professor, Physics; University of Illinois, Urbana-Champaign, PhD

## Steven Amato

Associate Teaching Professor, College of Professional Studies; Boston College, PhD

## Jane Amidon

Professor, Architecture; Harvard University, MLA
Mansoor M. Amiji
University Distinguished Professor, Pharmaceutical Sciences; Purdue University, PhD

Mahshid Amirabadi
Assistant Professor, Electrical and Computer Engineering; Texas AM
University, PhD

## Won-Hee An

Lecturer, Music; Boston University, DMA
James S. Anderson
Lecturer, Music; Berklee College of Music, BM

## Teiichi Ando

Professor, Mechanical and Industrial Engineering; Colorado School of Mines, PhD

## Rae Andre

Professor, Management and Organizational Development; University of Michigan, PhD

## Jonathan Andrew

Associate Cooperative Education Coordinator, College of Social Sciences and Humanities; SIT Graduate Institute, MA

## Edwin C. Andrews

Associate Professor, Art + Design; Indiana University, MFA

## Nasim Annabi

Assistant Professor, Chemical Engineering; University of Sydney (Australia), PhD

## Daniel Archabal

Senior Academic Specialist, Accounting; University of Pittsburgh, MBA

## Arnold Arluke

Professor, Sociology and Anthropology; New York University, PhD

## Carmen G. Armengol

Associate Professor, Applied Psychology; Pennsylvania State University, PhD

## Richard Arrowood

Associate Teaching Professor, College of Professional Studies;
Massachusetts School of Law, JD

## Cheryl Arruda

Assistant Cooperative Education Coordinator, College of Engineering; Northeastern University, MEd

## Susan Asai

Associate Professor, Music; University of California, Los Angeles, PhD

## Lori Ashline

Assistant Teaching Professor, College of Professional Studies; Western New England University School of Law, JD

## Javed A. Aslam

Professor, Computer and Information Science; Massachusetts Institute of Technology, PhD

Yernat Assylbekov
Postdoctoral Teaching Associate, Mathematics; University of Washington, PhD

## Anand Asthagiri

Associate Professor, Bioengineering; Massachusetts Institute of
Technology, PhD

## Nicholas Athanassiou

Associate Professor, International Business and Strategy; University of South Carolina, PhD

## Polly Attwood

Associate Teaching Professor, Education; Harvard University, EdD

## John Auerbach

Professor of the Practice, Institute on Urban Health Research; Boston
University, MBA

## Debra Auguste

Professor, Chemical Engineering; Princeton University, PhD

## Earlene Avalon

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William Wakeling, BA, MA, MA, Dean, University Libraries

Statements of Accreditation

## Accreditation

Northeastern University has maintained its status as a member in good standing of the New England Association of Schools and Colleges (NEASC) Commission on Institutions of Higher Education (CIHE) since it was awarded its initial accreditation in 1940. The university was last reviewed by NEASC in 2008 and will be reviewed again in fall 2018.

Northeastern University possesses degree-granting authority in Massachusetts, under the auspices of the Massachusetts Board of Higher Education.

| Program | Accrediting Agency |
| :--- | :--- |
| Northeastern University | New England Association of |
|  | Schools and Colleges (NEASC) |

## BOUVÉ COLLEGE OF HEALTH SCIENCES

| Program | Accrediting Agency |
| :--- | :--- |
| BS in Athletic Training | Commission on Accreditation <br> of Athletic Training Education <br> (CAATE) |
| MS in Speech-Language Pathology andCouncil on Academic <br> Accreditation in Audiology and <br> Speech-Language Pathology |  |
|  | (CAA) of the American Speech- <br> Language-Hearing Association <br> (ASHA), Massachusetts Board <br> of Education |
| BS in Nursing | Commission on Collegiate <br> Nursing Education (CCNE) |
| MS in Physician Assistant Studies | and Massachusetts Board of <br> Registration in Nursing |
|  | Accreditation Review <br> Commission on Education for <br> the Physician Assistant, Inc. |


| MS in Nursing in Anesthesia | Council on Accreditation of <br>  <br> Nurse Anesthesia Educational <br> Programs (COA); Commission <br> on Collegiate Nursing Education |
| :--- | :--- |
|  | (CCNE) and Massachusetts |
|  | Board of Registration in <br> Nursing |
| Registered Nurse/BSN |  |

## College of Arts, Media and Design

Program

Master of Architecture (Urban National Architectural Architecture)

Accrediting Agency

Accreditation Board (NAAB)

## D'Amore-McKim School of Business

| Program | Accrediting Agency |
| :--- | :--- |
| BS in Business Administration | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| BS and MS in International Business | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| MBA | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| MS in Finance | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| MS in Taxation | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| MS in Accounting | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| MS in Accounting/MBA | AACSB International-The |
|  | Association to Advance <br> Collegiate Schools of Business |
| AACSB International-The |  |

## College of Computer and Information Science

| Program | Accrediting Agency |
| :--- | :--- |
| BS in Computer Science | Computing Accreditation |
|  | Commission of ABET |
|  | (Accreditation Board for |
|  | Engineering and Technology) |

## College of Engineering

| Program | Accrediting Agency |
| :--- | :--- |
| BS in Computer Engineering | Engineering Accreditation <br>  <br> Commission of ABET |
| BS in Chemical Engineering | Engineering Accreditation <br> Commission of ABET |
| BS in Civil Engineering | Engineering Accreditation <br> Commission of ABET |
| BS in Electrical Engineering | Engineering Accreditation <br> Commission of ABET |
| BS in Industrial Engineering | Engineering Accreditation <br>  <br> BS in Mechanical Engineering |
|  | Engineering Accreditation <br> Commission of ABET |

## College of Professional Studies

| Program | Accrediting Agency |
| :--- | :--- |
| AS and Certificate in Paramedic | Massachusetts Department |
| Technology | of Public Health, Office of |
|  | Emergency Medical Services |


| BS in Finance and Accounting <br> Management |  |
| :--- | :--- |
| BS in Management ${ }^{1}$ | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| BS and AS in Computer Engineering | AACSB International-The <br> Association to Advance <br> Collegiate Schools of Business |
| Accredited by the Technology |  |
| Technology | Accreditation Commission of <br> ABET, 111 Market Place Suite |
|  | 1050 Baltimore, MD $21202-4012$ |
| Telephone: 410.347.7700 |  |


| MS in Technology Commercialization | AACSB International-The |
| :--- | :--- |
|  | Association to Advance |
|  | Collegiate Schools |

1 Accredited under the aegis of the "sponsoring" full-time college.
College of Social Science and Humanities

| Program | Accrediting Agency |
| :--- | :--- |
| BS in Criminal Justice | Massachusetts Board of |
|  | Education $^{1}$ |
| MS in Criminal Justice | Massachusetts Board of <br>  <br> Education |
| PhD in Criminal Justice | Massachusetts Board of <br>  <br> Master of Public Administration <br>  <br> Education |
| National Association of |  |
| Schools of Public Affairs and |  |
|  | Administration |

${ }^{1}$ The Massachusetts Board of Education approves (not accredits) programs.

## School of Law

| Program | Accrediting Agency |
| :--- | :--- |
| JD | American Bar Association |
|  | Association of American Law |
| Schools $^{4}$ |  |

4 The Association of American Law Schools is an elected membership organization, not an accrediting body.

## State Approvals, Authorizations, and Exemptions

Some states require that universities authorized to operate in their state make public disclosures. See the corresponding addendum (http://www.northeastern.edu/online/about-northeastern-online/stateagreements.php) for up-to-date, state-prescribed regulatory information.

## Resources

## Online Resources

The following online resources supplement this catalog:

## Course descriptions:

www.northeastern.edu/registrar/banner-catalog.html (http:// www.northeastern.edu/registrar/banner-catalog.html)

## Class schedules:

www.northeastern.edu/registrar/banner-schedule.html (http://
www.northeastern.edu/registrar/banner-schedule.html)

## Academic calendars:

www.northeastern.edu/registrar/calendars.html (http:// www.northeastern.edu/registrar/calendars.html)

## Campus maps:

www.northeastern.edu/campusmap (http://www.northeastern.edu/ campusmap)

## General Information

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 Undergraduate Student Handbook, Graduate Catalog, Cooperative Education Student Handbook, Faculty 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 or 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 posts emergency announcements, including news of weather-related closings, on its homepage (http://www.northeastern.edu) and notifies members of the community individually through the NU ALERT system. In addition, the 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 station WBUR (90.9), are the radio stations authorized to announce the university's decision to close. Television stations WBZ-TV4, WCVB-TV5, 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 a.m. 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 p.m.

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 Inclusion, 125 Richards Hall. Inquiries regarding the university's nondiscrimination policies may be directed to:

Office of Institutional Diversity and Inclusion
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

8th Floor
5 Post Office Square
Boston, MA 02109-3921
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 senior director of the Disability Resource Center. Persons requiring information regarding the Disability Resource Center should contact the center at 617.373 .2675 or, if using TTY, via Relay 711.

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 Student Handbook and Graduate Student Handbook and are distributed annually at registration for the university's colleges and graduate schools.

Cleary Act. Northeastern is committed to assisting all members of the university community in providing for their own safety and security. Information regarding campus security and personal safety, including topics such as crime prevention, university police law enforcement authority, crime reporting policies, crime statistics for the most recent three-year period, and disciplinary procedures, is available upon request from the Northeastern University Director of Public Safety, 360 Huntington Avenue, Boston, MA 02115, or by calling 617.373.2696.

Persistence Rates under the Student Right-to-Know Act. In the fall of 2015, the persistence rate for students who entered in the fall 2014 cohort was 96.7 percent.

Mission Statement:
To educate students for a life of fulfillment and accomplishment. To create and translate knowledge to meet global and societal needs.
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[^0]:    - Landscape Architecture (p. 50)

[^1]:    Complete three general electives.

[^2]:    ENGL 2296 Early African-American Literature

[^3]:    Total Hours: 134

[^4]:    Computer Science Fundamental Courses

[^5]:    Total Hours: 136

[^6]:    Total Hours: 134

[^7]:    Total Hours: 132

[^8]:    Total Hours: 133

[^9]:    Total Hours: 153

[^10]:    Total Hours: 128

[^11]:    Total Hours: 129

[^12]:    MATH 4025 Applied Mathematics Capstone

[^13]:    Total Hours: 135

[^14]:    Total Hours: 135

[^15]:    Total Hours: 136

[^16]:    Total Hours: 130

[^17]:    Human Services Elective

[^18]:    ECON 4992 Directed Study

[^19]:    Nineteenth Century

[^20]:    Total Hours: 157

[^21]:    Human Services Electives

[^22]:    Senior Seminar

[^23]:    Total Hours: 129

[^24]:    Total Hours: 129

[^25]:    Total Hours: 134

[^26]:    Total Hours: 128

[^27]:    POLS 3435 Politics and Governance of Europe and the European Union

