

# ACADEMIC PROGRAMS



**2016-2017**  
**ACADEMIC PROGRAMS**

**Western New England University**

1215 Wilbraham Road  
Springfield, Massachusetts 01119  
Telephone 413-782-3111 800-325-1122  
[www.wne.edu](http://www.wne.edu)

In its annual “America’s Best Colleges” edition, *U.S. News & World Report* ranks Western New England University in the top tier of the “Regional Universities—in the North” category of colleges and universities offering a full range of undergraduate and master’s programs.

In addition, the University is also featured in *Colleges of Distinction*, a college and university guide and website profiling institutions characterized as America’s best values in higher education.

The official 2016-2017 Western New England University Catalogue is online at [www.wne.edu/catalogue](http://www.wne.edu/catalogue).

The following sections can only be found online:

- Undergraduate course descriptions
- Graduate course descriptions
- Scholarship information
- Legal matters
- Directories



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## Disclaimer

Western New England University retains the right to change and/or amend the academic requirements as set forth in this publication as needs and circumstances require. Accommodations will be made for current students should they be adversely affected by amendments to or changes in the curricula or policies of the University.

## Nondiscrimination Policy

Western New England University is committed to the principle of equal opportunity in education and employment. The University does not discriminate on the basis of sex, race, color, creed, national origin, age, religion, sexual orientation, gender identity, gender expression, veteran status, genetics, or disability in admission to, access to, treatment in, or employment in its programs and activities. The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Assistant Vice President and Director of Human Resources  
 Western New England University  
 1215 Wilbraham Road  
 Springfield, MA 01119-2684

Inquiries concerning the application of nondiscrimination policies may also be referred to the:

Regional Director  
 Office for Civil Rights  
 U. S. Department of Education  
 J. W. McCormack P.O.C.H.  
 Room 222  
 Boston, MA 02109-4557





### **A Message from the President**

This publication conveys a rich and powerful portrait of a special institution that provides outstanding educational opportunities for all students. The Colleges of Arts and Sciences, Business, and Engineering offer dynamic undergraduate and graduate programs of study, with faculty who are experts in their fields and who are skilled teachers. The reputation of the Western New England University School of Law is firmly established. The College of Pharmacy graduated its first class in 2015 and will significantly enhance the University's reputation in the years to come. Western New England University has prepared 44,600 students to enter the world of work as responsible citizens—adaptable, entrepreneurial, and creative.

Western New England University is about more than its educational offerings; it is as much about individuals at the University who help students grow and thrive in our special environment. In support of every program and each activity there are faculty, staff, and administrators who bring life and vitality to all that is undertaken here. Our strength resides in our faculty, staff, and students, and in our rich educational programs. We are unique because of our history, traditions, and values, and because of our commitment to students.

I extend a special greeting to all who peruse this publication wanting to learn more about Western New England University and to our students utilizing these pages in order to plan programs of study.

A handwritten signature in cursive script that reads "Anthony Caprio". The ink is dark and the signature is written in a fluid, personal style.

Anthony S. Caprio

## About Western New England University

Western New England University is a private, comprehensive, coeducational institution located on a 215-acre campus in a suburban neighborhood four miles from downtown Springfield. Founded in 1919 as the Springfield Division of Northeastern University, it became established with its own charter and identity as Western New England College in 1951. Building of the current campus began in 1958. In 2011, the institution became Western New England University.

Western New England University values teaching excellence, mentorship, and research as it educates students committed to serving their communities. Through the integration of liberal and professional learning, the University promotes visionary thinking, leadership, and creativity to prepare its 3,955 students for the demands of a global society.

### Programs, Colleges, Faculty, and Students

Western New England University offers a wide range of undergraduate degree programs as well as graduate and doctoral programs in Arts and Sciences, Business, Engineering, Law, and Pharmacy. There are 220 full-time faculty members in the University's four Colleges and School of Law.

The University serves 3,955 students: 2,575 full-time undergraduates, 360 in full- and part-time JD and LLM programs in the School of Law, 300 Pharmacy students, and 720 in part-time undergraduate, graduate, and doctoral degree programs. The University attracts students from 40 states and territories and 26 foreign countries. There are 44,600 alumni of the University.

### Our Mission

The hallmark of the Western New England experience is an unwavering focus on and attention to each student's academic and personal development, including learning outside the classroom. Faculty, dedicated to excellence in teaching and research, and often nationally recognized in their fields, teach in an environment of warmth and personal concern where small classes predominate. Administrative and support staff work collaboratively with faculty in attending to student development so that each student's academic and personal potential can be realized and appreciated. Western New England develops leaders and problem-solvers from among our students, whether in academics, intercollegiate athletics, extracurricular and cocurricular programs, collaborative research projects with faculty, or in partnership with the local community.

At Western New England, excellence in student learning goes hand in hand with the development of personal values such as integrity, accountability, and citizenship. Students acquire the tools to support lifelong learning and the skills to succeed in the global workforce. Equally important, all members of our community are committed to guiding students in their development to become informed and responsible leaders in their local and global communities by promoting a campus culture of respect, civility, tolerance, environmental awareness, and social responsibility. We are positioned well to accomplish these goals as a truly comprehensive institution whose faculty and staff have historically collaborated in offering an integrated program of liberal and professional learning in the diverse fields of arts and sciences, business, engineering, law, and pharmacy.

### Our Core Values

- Excellence in Teaching, Research, and Scholarship
- Student-centered Learning
- A Sense of Community
- Cultivation of a Pluralistic Society
- Innovative Integrated Liberal and Professional Education
- Commitment to Academic, Professional, and Community Service
- Stewardship of our Campus

### Our Vision for Approaching Our Second Century

In 2019 Western New England will celebrate its Centennial as an institution of higher education. Our focus will continue to be on the whole student, but in a 21st century context highlighting the demands of a diverse and global society, the accelerating pace of technology, and the necessity of attention to environmental sustainability. Our next decade will be marked by a continued dedication to excellence, visionary thinking, flexibility, and entrepreneurial spirit. We must continue to develop as a comprehensive institution offering an integrated program of liberal and professional undergraduate and graduate education while establishing ourselves in a position of regional leadership and national recognition.

### A Brief History

The Springfield Division of Northeastern College, known as Springfield-Northeastern, was established in 1919. Evening classes, held in the YMCA building on Chestnut Street in Springfield for students studying part-time, were offered in law, business, and accounting. The first 13 graduates were recognized in 1922 with the degree of Bachelor of Commercial Science. In 1923, the first seven law graduates were recognized.

On July 17, 1951, the Springfield Division of Northeastern University was chartered and became Western New England College.

On April 26, 1956, 34 acres for the current Wilbraham Road campus were purchased. The first building, originally known as East Building, and later renamed Emerson Hall in recognition of the University's first trustee chairman, Robert R. Emerson, opened in 1959.

The School of Arts and Sciences was established in 1967, and Western New England received accreditation as a general purpose institution in 1972.

The University flourished on its new campus. The decades of the Sixties, Seventies, Eighties, and Nineties saw Western New England's academic programs expanding, its student body growing, and the addition of a number of buildings including the D'Amour Library, the Blake Law Center, the St. Germain Campus Center, the Alumni Healthful Living Center, and the LaRiviere Living and Learning Center. In 2001, the Evergreen Village townhouses opened for seniors. In 2002, the Kevin S. Delbridge Welcome Center opened, housing the admissions offices. Commonwealth Hall was added in 2003 along with the Golden Bear Stadium. The George Trelease Memorial Baseball Park was completed in 2004. A \$1.9 million addition to the D'Amour Library was completed in 2005 and a \$5.5 million addition and renovation of the Blake Law Center in 2008.

In 2008, Western New England launched its first Ph.D. program in Behavior Analysis. The following year, the institution opened Southwood Hall, a new eco-friendly residence hall for upper-classmen. The \$40 million Center for the Sciences and Pharmacy, opened in 2011.

On July 1, 2011, the institution officially became a university. The Schools of Arts and Sciences, Business, and Engineering became known as “Colleges,” while the School of Law retained its name.

In 2011, the Western New England University College of Pharmacy welcomed its first class to the PharmD program. The College of Engineering added the University’s second doctoral program: the Ph.D. in Engineering Management in 2012.

The period of 2012-2014 saw a major renovation to Arts and Sciences’ Herman Hall, and modernization and expansion to Engineering’s Sleith Hall designed to elevate our classroom and laboratory environments.

The University enrolls approximately 3,955 students and has 44,600 alumni around the world.

## Educational Opportunities

The University provides students with an impressive range of educational options. Each program is unique in its integration of liberal arts and professional education, theory, and practice. Some programs prepare students for successful careers in business, industry, and for continued study in graduate school. In others, students receive hands-on, experiential learning through internships, work with faculty on their own research, and interact with organizations in the community. There is an emphasis on the integration of technology in all programs, and students are provided with an increased international perspective to prepare for work in today’s global economy.

The faculty and staff are dedicated to personal interaction with students and to fostering an open environment conducive to personal growth. In addition to a wide range of academic programs, Western New England University also provides academic and other support services for students needing assistance in their studies and for those with disabilities.

The University provides opportunities for semester long and short seminar study abroad opportunities in England, China, France, Italy, South Africa, and many other countries. Furthermore, the University is located in an urban community with rich educational and cultural resources, and it participates in the Cooperating Colleges of Greater Springfield (CCGS), a consortium of colleges in which educational opportunities are enhanced through the sharing of resources.

## Campus and Facilities

The campus is located in a residential section of Springfield at 1215 Wilbraham Road, about four miles east of downtown Springfield.

The campus contains 26 major buildings and numerous athletic and recreational fields

The St. Germain Campus Center serves as a focal point for student activities and services. Included within the center are the dining hall, a food court, Starbucks, student lounges, convenience store, conference and student organization rooms, activity areas, and a bookstore. Law students enjoy eating and socializing in the Court Café in the Blake Law Center.

The University maintains 10 residence halls and apartment complexes that accommodate students in varied housing styles.

Facilities for intramural and intercollegiate athletics are available on the campus. Included are tennis courts, softball and baseball diamonds, and soccer fields. The University’s multipurpose turf stadium serves varsity sports including football, field hockey, and lacrosse. The George E. Trelease Memorial Baseball Park provides an outstanding facility for the Golden Bears. A variety of athletic, recreational, and health-related activities are conducted in the Alumni Healthful Living Center, which serves the entire University community. The Golden Bear Pavilion, opened in 2015, includes training and equipment rooms, a concession stand, and a public restroom.

## D’Amour Library

The D’Amour Library, which opened in 1983 and was expanded in 2005, offers users an inviting atmosphere for research and group and individual study. The library houses a collection of over 122,000 book, journal, and media volumes and provides access to over 61,000 periodical and monographic titles via electronic databases and subscriptions. In addition to its collections of materials that support the curricula of the University, the library has 128 public computers located throughout the building’s three floors that provide access to the Internet and to a variety of software applications. The campus wireless network is accessible throughout the library. Several individual study rooms are available for use as well as a number of group rooms for collaborative projects. The lower level offers a late night computer lab and study area to students on a daily basis throughout the year.

The library provides on-campus and off-campus access to its online catalog, WILDPAC, and to its numerous web-based resources through its webpage at <http://libraries.wne.edu>. WILDPAC lists the holdings of both libraries on campus, the D’Amour Library and the Law Library, while also providing links to many of the other online library catalogs in the area. Other resources available from the library’s webpage include JSTOR, Project Muse, MarketResearch Academic, Compendex, Embase, Lexicomp Academic, and several databases from EBSCOhost and Gale Cengage. Many of these online information resources provide the full text of indexed materials. Articles from the databases and from other online resources may be printed in the library at one of the seven available network printers. Off-campus access to many of the online databases is limited to users affiliated with Western New England University.

The library’s professional staff offers a full range of information services. Information literacy classes are offered by instruction librarians at the request of faculty to support research and writing assignments in their disciplines as well as to fulfill the general university information literacy requirement. In addition to formal instruction, librarians also provide reference assistance 62 hours per week, including weeknights and Sundays, during the academic year. Longer, individual reference appointments may be scheduled for more in-depth research.

The library is open seven days a week during the academic year. Holidays, summer hours, and exception days are posted in the library and on the library’s webpage. Internet access to the library’s online databases is available 24 hours a day for authorized users.

## The Law Library

Renovated and expanded in 2008, the three-story School of Law library offers an extensive collection of print and electronic resources, as well as a highly trained and dedicated staff to assist students and faculty members in their research. The library’s collection of approximately 380,000 volumes includes the newest research and reference resources; reprints of important historical texts; electronic databases including LexisNexis, Westlaw, and Bloomberg Law; microforms; and selected audio and video materials.

The library is also a selective depository for federal government publications.

The library is open more than 100 hours per week. The only academic law library in western Massachusetts, this rich resource is valued by students, professors, and area legal professionals.

## Professional and Regional Accreditation

The New England Association of Schools and Colleges (NEASC) regionally accredits Western New England University and all of its programs. Its professional programs are accredited by the following organizations:

### In Arts and Sciences:

Programs in Education are approved by the Massachusetts Board of Education (MBE) and meet the standards of reciprocity of the Interstate Certification Compact. The Council on Social Work Education (CSWE) accredits the Bachelor of Social Work program.

The doctoral program in Behavior Analysis has been accredited by the Association of Behavior Analysis International (ABAI) for the period 2014-2019.

### In Business:

The College of Business is accredited by AACSB International—The Association to Advance Collegiate Schools of Business.

Western New England University is the only private AACSB International accredited university in western Massachusetts. With accreditation, Western New England University is among an elite company of accredited business schools, which comprise 5% of business programs worldwide.

The Sport Management program has been accredited by the Commission on Sport Management Accreditation (COSMA) for 2014-2021.

AACSB International accreditation represents the highest standard of achievement for business schools worldwide. Member institutions confirm their commitment to quality and continuous improvement through a rigorous and comprehensive multiyear review.

### In Engineering:

The undergraduate degree programs in Biomedical, Electrical, Industrial and Mechanical Engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), [www.abet.org](http://www.abet.org).

The Civil Engineering and Computer Engineering undergraduate degree programs are following the application process for accreditation as outlined by ABET, Inc.

### In Pharmacy:

The College of Pharmacy's Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education.

### In Law:

The School of Law is accredited by the American Bar Association (ABA) and is a member of the Association of American Law Schools (AALS).

### Membership

Western New England University is a member of the Association of American Colleges and Universities, the College Entrance Examination Board, the Association of Governing Boards of Universities and Colleges, the Council of Independent Colleges, the National Association of Independent Colleges and Universities, and the Association of Independent Colleges and Universities of Massachusetts.

## Technology Services

The Office of Information Technology (OIT) provides a full range of technology and technology related services to the University.

The University boasts the latest state-of-the-art technology, including fully digital classrooms, laboratories, and equipment. Over 500 public computers are available for use throughout campus. In addition, the wireless network is, or will soon be, available in all residence halls and campus buildings, as well as some outdoor areas on campus.

There are numerous learning technologies available for faculty and students to enhance instructional capabilities including a learning management system, lecture capture solutions, distance learning capabilities, and numerous University software licenses supporting our various disciplines.

For a full description of technology services please visit the University's "OIT Handbook" at:  
<http://www1.wne.edu/oit/index.cfm?selection=doc.1917>

## ADMISSIONS

### Undergraduate Admissions for Full-time Enrollment

#### How to Learn More About Western New England University

Prospective students and parents are encouraged to visit the campus and to avail themselves of the opportunity for a personal interview and tour. Students and parents also have the opportunity to attend a series of Open House Programs. These programs are held on selected Saturdays and Sundays and include a tour of the campus. Currently enrolled students conduct the tours and can provide applicants with a personal perspective of the University and student life. While an interview is not required, the University encourages students to arrange for a personal interview at the Admissions Office.

In addition to a campus visit and the University literature, information is available electronically at [www.wne.edu/admissions](http://www.wne.edu/admissions).

The Admissions Office can be contacted through the following means:

Telephone: 800-325-1122, ext. 1321 or 413-782-1321

Fax: 413-782-1777

Email: [learn@wne.edu](mailto:learn@wne.edu)

#### How to Apply for Full-time Admission

The following procedure should be completed for admission as a freshman or transfer student for full-time study (12 credit hours or more per semester).

- Students should submit a completed application. An application can be submitted online through our website ([www.wne.edu/admissions](http://www.wne.edu/admissions)). Students can also download an application from the website or complete the Common Application.
  - The completed application form should be returned with the nonrefundable \$40 application fee.
  - Students should forward to the Admissions Office an official high school transcript(s). First term senior grades may be required for some students. Transfer students should forward official transcripts of final secondary work, as well as any previous undergraduate study, to the Admissions Office.
  - Results of the SAT I or ACT examinations should be forwarded to the Admissions Office. The CEEB number for the SAT is 3962; the college code for the ACT is 1930.
  - A recommendation from a guidance counselor or teacher is required.
  - Applicants should submit a personal statement, essay, or untimed writing sample of your choice (at least 250 words).
- Students should have their school forward to the Admissions Office an official English translation of the high school transcript(s) as well as an official transcript of first term senior grades when available. Transfer students should have their school forward to the Admissions Office an official English translation of transcripts of final secondary school work as well as any previous undergraduate study.
  - The official results of the Test of English as a Foreign Language (TOEFL) should be forwarded to the Undergraduate Admissions Office. IELTS, EIKEN, or PTE Academic scores will also be accepted. SAT or ACT scores can be submitted instead of the other assessments. English proficiency can also be shown by submitting proof of completion of an Intensive English program that we have an agreement with. You can find a list of these programs on our website.
  - An Affidavit of Support form must be submitted to the Admissions Office.
  - An official bank statement declaring that the financial sponsor has sufficient funding to support the student's education at Western New England University should be submitted on the bank's stationery.
  - A recommendation from a guidance counselor or teacher is required.
  - A copy of the student's passport should be provided.

The I-20 Form will be issued to an accepted international student.

#### Specific Requirements for the Various Colleges

Persons admitted as regular degree-seeking candidates must have graduated from an approved secondary school or have obtained a General Equivalency Diploma (GED). They must also have successfully completed the following minimum preparatory units:

##### College of Arts and Sciences

The College of Arts and Sciences requires four units English; one unit laboratory science; two units mathematics equivalent to two of the following: algebra I, geometry, or algebra II; one unit United States history.

- One unit of chemistry and one unit of biology are required for prospective majors in biology, chemistry, health sciences, forensic biology, forensic chemistry, neuroscience, pre-pharmacy and pre-physician assistant. In addition, one unit of physics is recommended for prospective majors in chemistry, forensic chemistry, health sciences, neuroscience, pre-pharmacy and pre-physician assistant.
- Prospective majors in biology, computer science, information technology, and neuroscience are required to present three units of mathematics; a fourth year is recommended.
- Prospective majors in chemistry, forensic biology, forensic chemistry, health sciences, mathematics, pre-pharmacy and pre-physician assistant are required to present four units of mathematics. One unit must be the equivalent of a pre-calculus course. Students must arrive calculus-ready.

##### College of Business

The College of Business requires four units English; one unit laboratory science; three units mathematics equivalent to algebra I, geometry, and algebra II; one unit United States history.

#### Application Procedure for International Students

International students who are proficient in the English language and who wish to be considered for admission should comply with the following procedure:

- Students should submit a completed application. An application can be submitted online through our website ([www.wne.edu/admissions](http://www.wne.edu/admissions)). Students can also download an application from the website or complete the Common Application.
- The completed application form should be returned with the nonrefundable \$40 application fee (U.S. dollars).

## **College of Engineering**

The College of Engineering requires four units English; one unit United States history; four units mathematics equivalent to algebra I, geometry, algebra II, and an additional year beyond algebra II (such as precalculus) which includes trigonometry; one unit laboratory science; and one unit physics or chemistry (preferably both). Students must arrive calculus ready.

### **When Admission Decisions Are Made**

Western New England University begins accepting students for the fall semester in October. The Undergraduate Admissions Office continues to review applications until the class is filled. The University also enrolls students midyear. Acceptance for the January semester begins in early fall.

### **When It Is Necessary to Declare Enrollment Intentions**

A nonrefundable tuition deposit of \$100 is required by May 1 from each student who has been accepted. Students who plan to live on campus must submit an additional \$300 nonrefundable housing deposit at the same time. These fees are deducted from the total charges. After the tuition deposit has been paid, the following are required prior to registration:

1. Physical examination form including immunization verification completed by the applicant's healthcare provider.
2. Verification of health insurance coverage, in compliance with Massachusetts state law, or participation in the University's insurance program.

### **Transfer Credit Evaluation**

The number of transfer credits is based upon work completed at previous accredited institutions. The status of transfer students is not automatically determined by the number of credit hours already earned or by the nomenclature of courses taken. Rather, each transcript is evaluated on a course-by-course basis. Normally, credit is allowed for each course that is equivalent to a corresponding course at Western New England University provided the earned grade is C- or above. Within a few weeks of acceptance, the Undergraduate Admissions Office sends each transfer student a degree audit, which shows how each previous course applies to the student's specific degree program at Western New England University. In certain English and Mathematics courses, application of transfer credit may be subject to completion of additional assessment.

Up to 70 credits are acceptable in transfer from two-year colleges, and up to 90 credits from four-year colleges and universities (including any applicable two-year college credits).

The College of Business requires that the majority of credits, contact hours, or other metric in traditional business subjects counted toward the degree fulfillment be earned at Western New England University.

### **Transfer Students' Degree Requirements**

Customarily, a student who has received an associate's degree in an approved program from an accredited college and who is accepted for admission will be granted junior status. Although it is often possible for such a student to complete a program in a chosen field within two years at the University, the specific requirements of some majors may require a longer period of study. It is necessary for a transfer student to complete at least one year (30 credit hours) of study at Western New England University in order to be granted a degree. Students transferring to Western New England University may follow the requirements of their chosen major using the year when they become a student at Western New England University or the year when they first matriculated at their first college if less than four years prior to

the transfer to Western New England University. This decision will be made by the student and approved by the chairperson of the major program.

### **Advising for Transfer Students**

Prior to actual enrollment, transfer students may seek advice from several distinct vantage points. General transitional guidance is most often sought from the Office of First Year Students & Students in Transition. It is here that much of pre-enrollment advising is coordinated. In most cases, formal communication begins in early May for fall admission and in December for spring semester entry. This office also serves as the point of contact for initial course registration and pre-matriculation orientation. In addition, transfer students may contact the Dean's Office of the College in which the desired major is administered, particularly if there are questions regarding transfer credit and planning remaining academic work. Issues pertaining to changing curriculum choice prior to matriculation are typically handled through the Admissions office.

### **Joint Admissions**

The Joint Admissions Program is offered in collaboration with the following community colleges: Berkshire, Greenfield, Holyoke and Springfield Technical. The program is designed to facilitate the transfer of students earning an associate's degree from a designated community college. Eligible students are conditionally accepted to Western New England University upon enrolling in the program. An emphasis is placed on advisement to ensure the maximize transfer credit is applied towards an approved major, and to ensure a smooth transition to Western New England University. Participating students must earn a minimum 2.3 cumulative grade point average (based on a 4.0 scale) and either the associate's degree or a minimum of sixty (60) semester hours. Students are subject to the same transfer credit restrictions that apply to traditional applicants.

### **Transfer Articulation Agreements**

Transfer articulation agreements have been arranged between Western New England University and various community and junior colleges. Associate's degree graduates who have followed the prescribed programs of study at these specific institutions may be able to complete requirements for baccalaureate degrees in two years at Western New England University.

### **Reinstatement Procedure (Reactivation)**

Whenever continuous enrollment has been interrupted, students must initiate formal contact with the University in order to request reinstatement and/or reactivation. Observing the following steps will result in the most efficient review, and timely decision.

- If previously suspended or on probation at the time of last enrollment, submit a written request to the Dean of First Year Students & Students in Transition, who will coordinate the necessary review by the appropriate Academic Dean.
- If enrollment is discontinued in good standing, the student may simply submit a request for reactivation, directed to the Dean's Office of the College in which the desired major is administered. Requests may also be directed as above.
- Official transcripts of any academic work taken since leaving the University must be submitted prior to the beginning of classes in the semester in which the student wishes to register. Depending on the academic program intended and the nature of the academic standing at the time of last enrollment, the student may need to provide evidence of a 2.5 GPA for any coursework taken in the interim.

- Upon re-enrollment or reinstatement, students are subject to all rules, regulations and academic requirements effective at the time of re-enrollment or reinstatement.
- On-campus housing is not necessarily guaranteed.

## Undergraduate Admissions for Part-time Study

### Part-time Day and Evening Study

#### How to Apply for Admission to Part-time Study

The Admissions Office oversees admission to part-time study. Students are accepted on a rolling admissions basis.

1. Application forms for part-time study may be obtained from the Admissions Office, or electronically from the Graduate Studies and Adult Learning link at [www.wne.edu/adultlearning](http://www.wne.edu/adultlearning)
2. A completed application includes:
  - The completed, signed application form
  - The nonrefundable \$30 application fee
  - An official high school transcript or proof of the achievement of high school equivalency
  - An official transcript from each institution of higher education attended
  - A letter of recommendation
3. Applicants may be required to complete specific college-level courses in a nondegree status prior to formal admission.
4. Students admitted to part-time status may register for day, evening, or online courses.

### Undergraduate

Western New England University has a long tradition of providing continuing education for students who seek part-time day and evening study, those who are older than 18- to 22-year-old full-time students, and those who are beginning or returning to higher education after spending time in other pursuits.

The University may accept qualified part-time students into its daytime undergraduate degree programs. The College of Business offers a part-time evening degree program in Accounting.

### Undergraduate Nondegree Courses

Temporary nondegree status is available for students who wish to explore new subject areas before entering a degree program or earn credit prior to formal admission. This is also an option for visiting students from other colleges and universities who satisfy admissions requirements. Students must maintain an average of at least 2.0 (C) in courses taken at Western New England University. Students may enroll in a maximum of 36 credits under nondegree status. Advising and registration of nondegree students takes place in the colleges. Nondegree students may also apply for the certificate programs (p. 168).

### Online Bachelor of Business Administration

The University offers an online Bachelor of Business Administration (BBA). This is a degree completion program designed for students with an associates' degree or approximately 60 undergraduate credits, 30 of which must apply towards the degree. For more information and a schedule of courses visit [www.wne.edu/bba/](http://www.wne.edu/bba/).

## Graduate Admissions

### How to Apply for Admission

Admission to all graduate degree programs at Western New England University requires an earned baccalaureate from an accredited college or university and additional materials as described below. Applicants to a number of the master's programs may be admitted for any term on a rolling admissions basis. However, some graduate programs will have specific entry points for when candidates will begin their studies. Please reference the graduate studies website for further information. MEEE candidates who wish to complete the program in two years are encouraged to start during the fall term. This is due to the sequential offering of courses. The application process and admission to the JD and LLM programs in the School of Law are described in materials available directly from the School of Law.

**Graduate Transfer Credit.** Students who have earned graduate credit before they apply to Western New England University may request the transfer of a maximum of six credit hours for 30-credit master's programs or 12 credit hours for master's programs comprising at least 36 credits. The minimum required grade for transfer is B (3.0). Final award of graduate transfer credit is at the discretion of the dean responsible for the applicant's degree program.

**Credit Earned in Nondegree Graduate Status.** Graduate credit earned at Western New England University in nondegree graduate status may be applied toward graduate degree requirements up to a normal limit of six credit hours. The minimum grade is B (3.0).

**Time Limits.** Accepted graduate credits may be applied toward graduate degree requirements for no more than eight years. For example, an acceptable graduate course completed in the fall term of 2015 counts toward graduation only until the end of the 2023 summer term.

### Application Procedures for Graduate Programs:

1. Obtain an application for graduate degree programs from the Admissions Office or electronically from the Graduate Studies and Adult Learning homepage at [www.wne.edu/graduatestudies](http://www.wne.edu/graduatestudies)
2. Submit a completed, signed application for graduate admission with the required fee to the Admissions Office.
3. Arrange to have official college and university transcripts sent directly from all institutions attended.
4. Arrange to have other documents, such as letters of recommendation or official test score reports, sent directly from the reporting person or agency as described below for the specific degree programs.
5. Completed applications are reviewed by the Graduate Admissions Committee of the appropriate college.
6. Applicants for graduate certificate programs should contact the Admissions Office for application procedures.

### College of Arts and Sciences

#### Master of Arts in Mathematics For Teachers and Master of Arts in English for Teachers

The Master of Arts in Mathematics for Teachers (MAMT) and Master of Arts in English for Teachers (MAET) programs are designed primarily for secondary and middle school teachers in the specific disciplines. These programs are also available to candidates with an interest in further study in either mathematics or English in nonteaching fields.

The requirements for the MAMT and MAET degrees are:

1. a baccalaureate degree from an accredited college or university;
2. an overall undergraduate grade point average (GPA) of at least 2.5 (a GPA of 3.0 in the major is preferred for both programs);
3. an academic or professional background equivalent to at least a minor in mathematics for the MAMT program or in English for the MAET program. Further, it is preferable that applicants have either a Provisional or Initial License in teaching. Applicants lacking an undergraduate major in mathematics or English may have to take more than ten courses in order to complete the corresponding program;
4. a minimum of two letters of recommendation, at least one of which must be from the candidate's supervisor;
5. a current curriculum vitae; and
6. submission of a personal statement.

Applicants who do not meet the GPA requirement or GRE requirement may be considered for admission based on other aspects of their application.

### **Master of Education in Curriculum and Instruction**

The Master of Education in Curriculum and Instruction program is designed primarily for elementary or secondary teachers who hold a teaching license or certificate, however, it is also available to teachers who have an interest in graduate study in any of the areas covered by our courses.

The requirements for the MEd in Curriculum and Instruction are:

1. completion of a baccalaureate from an accredited institution, preferably in a field related to education;
2. an overall undergraduate grade point average of at least 2.8;
3. previous teaching, administrative or experience in other educational roles is desired but not required;
4. two recommendation letters, at least one of which must be from the candidate's supervisor and speak directly to the applicant's intellectual capacity and ability to be successful in master's level work;
5. a current curriculum vitae; and
6. a typed, one-page, single-spaced personal statement articulating your reasons for pursuing graduate study in education and how the degree will help you attain your personal goals.

### **Master of Fine Arts in Creative Writing (Fiction)**

The Master of Fine Arts (MFA) in Creative Writing is a low-residency two-year program that combines bi-annual, short-term residencies with individualized online study. Established authors teach students how to read and think about fiction from a creator's perspective. The MFA covers all aspects of fiction writing – including sentence craft, voice development, honing dialogue, and shaping beginnings, middles and endings. The requirements for the MFA are:

1. a baccalaureate degree from an accredited college or university;
2. a fiction writing sample. The writing sample should be up to 15 pages, typewritten, single sided, and double-spaced;
3. a typewritten personal narrative (up to 500 words) that describes the tradition of fiction that inspires your work; and

4. two letters of recommendation.

### **Master of Science in Applied Behavior Analysis**

Developed in response to the increasing demand for teachers and practitioners trained in best practices for the education and treatment of individuals with autism and related disabilities, the Master of Science Program in Applied Behavior Analysis at Western New England University will give working professionals the skills needed to work with this population. Through a combination of coursework and supervised practical experiences, students completing this program will earn a Master's degree in Applied Behavior Analysis and meet the Behavior Analysis Certification Board (BACB) requirements for taking the exam to become Board Certified Behavior Analysts.

The requirements for the MS in Applied Behavior Analysis are:

1. a minimum of a bachelor's degree, and at least a 3.0 grade point average in their bachelor's program;
2. a combined score of 1000 on the verbal and quantitative sections of the GRE;
3. three letters of recommendation;
4. submission of a personal statement; and
5. a current curriculum vitae.

### **Master of Arts in Communication**

The online Master of Arts in Communication with a Public Relations Concentration is designed to help communications professionals take full advantage of today's integrated media opportunities to position, promote, and protect the image of their organizations. The online MA in Communication program is ideal for individuals who are looking to further their communication or business career, gain new skills to increase their earning potential, and enhance job satisfaction, as well as career-changing professionals interested in pursuing opportunities in communication.

The requirements for the MA in Communication are:

1. a baccalaureate degree from an accredited college or university, ideally but not necessarily in one of the following disciplines: business, communication, English, journalism, marketing, or public relations;
2. an overall undergraduate grade point average of at least 3.0. Candidates with an undergraduate GPA between 2.5 and 3.0 (on a 4.0 scale) will be considered for conditional admittance;
3. three letters of recommendation; and
4. a personal essay of no less than 500 words articulating reasons for pursuing graduate study in communication.

### **Doctor of Philosophy in Behavior Analysis**

Developed in response to the increasing demand for scientists and practitioners of evidence-based methods for the education and treatment of individuals with autism and related disabilities, the Ph.D. program in Behavior Analysis at Western New England University will give you the skills to become a leading voice in the field. Through a combination of coursework and supervised practical and research experiences, the aim of the Department of Psychology is to train researchers and scientist-practitioners in the discovery, translation, and application of knowledge toward solving human behavior problems of societal importance (e.g., autism and related disabilities). All classroom course work is done at the New England Center for Children.

The requirements for the Ph.D. in Behavior Analysis are:

1. A master's degree in behavior analysis, or certification as a master's-level behavior analyst by the Behavior Analysis Certification Board;
2. A minimum of a 3.6 grade point average (GPA) in master's degree program. (Tentative acceptance is allowed for having a GPA between 3.25 and 3.6, if other criteria are above minimal criteria.);
3. A combined verbal and quantitative score of 300 on the Graduate Record Exam (GRE) with neither score being below 150 for full admission (Tentative admission is allowed if either score is less than 150, if other criteria are above minimal criteria.);
4. Three letters of recommendation;
5. Submission of a personal statement; and
6. A current curriculum vitae.

### ***College of Business***

For the Master of Business Administration (MBA), the Master of Science in Accounting (MSA) and the Master of Science in Organizational Leadership (MSOL) degrees the requirements are:

1. A baccalaureate degree from an accredited college or university.
2. An official score report for the Graduate Management Admissions Test (GMAT) taken not more than five years prior to the application date, or satisfaction of exemption as indicated below:
  - a. The completion of a graduate degree, master's, or doctorate, from an accredited college or university with quantitative coursework (six or more credits), averaging a GPA of 3.0 or higher.
  - b. Completion of a bachelor's degree from Western New England University or an AACSB accredited program with a GPA of 3.3 or higher. If you attended multiple institutions, your GPA will be based on the cumulative GPA of all institutions attended. The waiver will be granted if your earned bachelor's degree is no more than five years prior to your application date. In order to be eligible for the waiver, if you have taken Western New England University Graduate courses as an undergraduate, you must have a minimum "B" or 3.0 in EACH course (NOTE: Tentative GMAT Waiver and Admit Status: While finishing your Western New England University Degree, you must maintain an undergraduate GPA of 3.3 and a minimum of "B" or 3.0 in EACH Western New England Graduate Course if Tentatively Admitted during senior year.)
  - c. Completion of a Juris Doctor degree from an ABA accredited program.
  - d. Acceptable Graduate Record Examination (GRE) score.
  - e. Currently enrolled in the Western New England University School of Law JD program in good academic standing. Arrange for a copy of LSAT report to be sent from the School of Law to the Admissions Office.
  - f. Have passed all sections of the Uniform CPA Exam.
  - g. Current professional certification. Approved professional certifications: Certified Public Accountant (any state), Certified Management Accountant, Certified Network Engineer, Certified Professional Engineer, Certified Integrated Resource Manager,

Certified in Production and Inventory Management, Certified Financial Planner, Certified Financial Analyst, Certified in Financial Management, Registered Pharmacist, Project Management Professional, Registered Nurse, Six Sigma Green Belt or higher, Fellow of Society of Actuaries.

- h. A minimum of four years of professional experience which is reflected in a resume and written statement that demonstrates:
  - Career progression toward senior levels of management (Evidence of leadership, supervisory, and decision-making skills)
  - Increasing Budgetary Responsibilities (Not tracking but oversight, planning, and revenue forecasting and resource allocation)
- i. For the MSOL, successful completion of the Leadership Certificate with a B (3.0) GPA and no grade lower than "B."
3. Two letters of recommendation
4. Submission of two essays
5. A current curriculum vitae

For the Graduate Leadership Certificate, the requirements are:

1. An undergraduate degree with GPA of 3.0 or higher
2. Personal statement

### ***College of Engineering***

For programs leading to the Master of Science in Civil Engineering (MSCE), the Master of Science in Engineering Management (MSEM), the Master of Science in Electrical Engineering (MSEE), the Master of Science in Industrial Engineering (MSIE), and the Master of Science in Mechanical Engineering (MSME), the requirements are:

1. the graduate programs in engineering require a baccalaureate degree in engineering, or a closely related field, from an accredited college or university. Those seeking admission to the master's programs without such a degree may petition to have their baccalaureate degree and professional experience accepted as a substitute;
2. a grade point average in the last half (usually 60 credit hours) of undergraduate work of a minimum of B (3.0);
3. two letters of recommendation from persons acquainted with the applicant's business, professional, or academic achievements;
4. current curriculum vitae; and
5. students with an undergraduate program not accredited by ABET are encouraged to submit a GRE score from the past five years.

### **Doctoral Program in Engineering Management**

#### **General Information**

The Doctor of Philosophy (Ph.D.) focuses on developing skills needed to conduct rigorous research in areas related to the improvement, design, and management of projects and programs within complex human-technological systems. These systems include engineering systems, health care systems, service systems and logistical/transportation systems. Through a combination of coursework and directed research the Department of Industrial Engineering and Engineering Management will provide a solid

foundation and depth of engineering management theory and practice, provide breadth and depth across multiple types of human technological systems, and to contribute to the body and knowledge in engineering management.

The requirements for the Ph.D. in Engineering Management are:

1. possession (or nearing the completion) of a master's or bachelor's degree in engineering, or a closely related discipline (Non-engineer applicants may gain conditional admittance that requires successful completion (B or better) of a set of leveling courses as determined by the Ph.D. Admission Committee).
2. competence in at least one structured programming language: (i.e. C, C++, FORTRAN, Visual BASIC,...)
3. evidence of completion of the following course(C or better); Probability and Statistics
4. a minimum cumulative grade point average of a 3.5 in all graduate work or a minimum undergraduate cumulative grade point average of a 3.5. Tentative acceptance is allowed for candidates having a GPA between 3.0 and 3.5; and
5. a Graduate Record Exam (GRE) score from the last five years with a combined verbal and quantitative score of 300 with a quantitative score in at least the 50th percentile.

### **School of Law**

**School of Law.** The School of Law offers full- and part-time JD programs designed to be completed in three and four years respectively. A total of 88 academic credits is required for graduation.

Additional information and an application form are available by contacting:

Admissions Office  
Western New England University School of Law  
1215 Wilbraham Road  
Springfield, MA 01119  
800-782-6665, or email: [admissions@law.wne.edu](mailto:admissions@law.wne.edu)

It also offers a part-time LLM program in Estate Planning and Elder Law designed to be completed in two or three years. The programs offered online. A total of 24 academic credits is required for graduation. Additional information and an application form are available by contacting:

LLM Admissions Office  
Western New England University School of Law  
1215 Wilbraham Road  
Springfield, MA 01119  
413-782-1426, or email: [calexander@law.wne.edu](mailto:calexander@law.wne.edu)

### **How Graduate Admission Decisions Are Made**

The admission decision is based on the applicant's undergraduate academic performance in combination with other evidence, such as official test scores submitted as part of the application. Applicants judged by the graduate admissions committee to be deficient in verbal, quantitative, or general academic preparation may be granted permission to register at the discretion of the committee. These students are allowed to take up to two courses as a nondegree student. Upon satisfying specified conditions a student will be reconsidered for admission. Conditions may include, but are not limited to, satisfactory completion of prerequisite courses; demonstrated academic performance in graduate courses at Western New England

University; and satisfactory completion of undergraduate English and/or mathematics courses.

### **School of Law**

Admission to the JD program in the School of Law is dependent upon an applicant's performance on the Law School Admissions Test (LSAT), undergraduate grade point average, and other information that would assist the Admissions Committee in assessing the applicant's ability to pursue a career in legal education. College courses that improve an applicant's writing, analytical, and critical thinking skills are especially important.

### **Combined JD/MBA (Juris Doctor/Master of Business Administration) Degree, JD/MSA (Master of Science in Accounting), and JD/MSOL (Master of Science in Organizational Leadership)**

Candidates for this program are required to apply to both the MBA, MSA, or MSOL program through the College of Business and the JD program through the School of Law.

### **Combined PharmD/MBA and PharmD/MSOL**

Candidates for the program are required to apply to both the MBA or the MSOL through the College of Business and the PharmD program through the College of Pharmacy.

### **Combined MSEM/MBA (Master of Science in Engineering Management/Master of Business Administration) Degree**

Candidates for this program are required to apply to both the MSEM program through the College of Engineering and the MBA program through the College of Business.

### **Graduate Program Status Categories**

Applicants to graduate programs in Arts and Sciences, Business, and Engineering at Western New England University can be admitted in one of the following categories.

#### **Degree Status**

Students who are admitted as fully qualified to undertake a program leading toward a degree are termed degree status students.

#### **Tentative Status**

Students may be permitted to enroll in courses leading to a degree under tentative status before the application and evaluation process is complete. The tentative status is valid for a maximum of seven credits in the first term or two consecutive terms of no more than four credits each. Upon the conclusion of the tentative status period, the student's application and academic record will be evaluated. The evaluation will result in termination, admission to degree status, or admission to nondegree status.

#### **Nondegree Status**

Students who wish to take graduate courses outside of a degree program may be approved as nondegree status students. Nondegree status students do not require as much supporting documentation but are required to provide proof of a baccalaureate degree from an accredited college or university. They may take courses subject to space availability and an advisor's approval. Continuing registration requires minimum grades of B (3.0) in all Western New England University graduate courses. Nondegree students may apply a maximum of seven credits toward a degree if they complete the application process and are accepted as degree status students. Nondegree status students who take more than seven credits and complete the requirements for a certificate may apply for degree

status and, upon their acceptance into a degree program, all courses common to both the certificate and the degree will be applied to the degree.

## **Nondegree Status**

### **How to Register for Courses Taken in Nondegree Status**

The University offers nondegree enrollment for students who wish to explore undergraduate or graduate study and earn credit before they are formally admitted to a degree program, and for visiting students from other institutions. Academic requirements may change over time so that courses completed in the nondegree status may not be applicable to the program chosen at the time of matriculation.

Nondegree students are not eligible for most types of financial aid.

### **Certificate Programs**

Western New England University makes several Certificate Programs available to those who do not want a degree, but who want specialized training that goes beyond a few courses in a subject.

There are undergraduate certificate (p. 168) programs in chemistry and communication. There are graduate certificate programs in engineering, leadership and a certificate in Applied Behavior Analysis.

Information is available through the Admissions Office.

### **Undergraduate Nondegree Study**

Permission to register requires proof of high school graduation or its equivalent. Continuing registration normally requires a cumulative grade point average of C (2.0) in courses taken at the University. Nondegree students must satisfy published course prerequisites and may be required to submit official transcripts as proof of appropriate preparation. Advising of nondegree students is provided through the colleges.

### **Graduate Nondegree Study**

Please refer to Nondegree Status (p. 15).

## UNDERGRADUATE ACADEMIC INFORMATION

### Undergraduate Policies, Procedures, and Requirements for Degrees

#### Basic Structure of the Undergraduate Degree

At Western New England University, students typically enroll in programs designed to be completed in four academic years. Bachelor's degrees are earned by completing at least 122 credit hours in a structured program, though undergraduate degrees in engineering and certain other degree programs can require up to 132 credit hours.

#### Course Loads

The University considers 12-17 credit hours per semester to constitute a normal course load for full-time students. Students who have earned Dean's List standing in the previous semester may enroll for 18 credit hours without special permission. In other cases, each request for enrollment for 18 or more credit hours per semester requires the recommendation of the student's advisor and approval by the dean of the academic college in which the student is enrolled. First year students require the approval of the Dean of First Year Students & Students in Transition.

#### Online Course Load

Full-time undergraduate students at Western New England University, in order to experience a wide range of pedagogy, are allowed to register for no more than one online course per semester of the regular academic year. Online courses can only be taken after the freshman year. There is no restriction to the number of online courses/credits a full-time student can apply toward a degree provided the courses are equivalent to Western New England University courses.

Exceptions are at the discretion of the Provost after consultation with student's faculty advisor, the department chairperson of the student's major, and/or the Dean of the College of the student's major.

#### Credit Hours System

Credit in all programs is awarded in accordance with regional accreditation standards based upon the Carnegie classification system. In that system one credit hour is earned for attending one 50-minute lecture each week for the typical 15-week semester. Thus, a three-credit-hour course meets, typically, for 50 minutes three times per week for 15 weeks or for 75 minutes twice a week for 15 weeks. Some evening courses meet only once a week for 160 minutes. In the usual 122 credit hour degree program students complete ten three-credit-hour courses per year and the two-credit-hour requirement in physical education, health, and recreation (PEHR).

#### Class Standing Designations

Students are designated as either freshman, sophomore, junior, or senior in accordance with the number of credit hours they have completed at the University in a structured degree program.

**Freshman:** 26 credit hours or fewer (27 credit hours in the College of Engineering).

**Sophomore:** 27-56 credit hours completed (28-61 credit hours in the College of Engineering).

**Junior:** 57-86 credit hours completed (62-94 credit hours in the College of Engineering).

**Senior:** 87 credit hours or more completed (95 or more credit hours in the College of Engineering).

#### Relationship of Course Designation Numbers to Stages in Curricula

All courses in the catalogue have course designation numbers. In general, the numbers designate the level of the course offering within a four-year curriculum and within a major program of study.

#### Freshman courses are numbered:

100 to 199 Lower Division

#### Sophomore courses are numbered:

200 to 299 Lower Division

#### Junior and Senior courses are numbered:

300 to 499 Upper Division

Major programs of study typically consist of one or two 100 level courses and two or three 200 level courses taken as prerequisites in the freshman and sophomore years, and the remaining 300 and 400 level courses taken in the junior and senior years.

#### Components of a Typical Undergraduate Degree

A student continually enrolled, with no interruption of academic program longer than one semester's absence, is expected to fulfill the requirements of the catalogue current at the time of admission to the University. A student not continually enrolled may be expected to meet the requirements current at the time of reactivation.

The courses required for a degree differ with the choice of major program and the college within which that program is offered. All students are subject to three classifications of course requirements:

1. General University requirements
2. College requirements designed to broaden and deepen students' knowledge of disciplines outside of their majors.
3. The requirements of a major

#### Qualifications for a Baccalaureate Degree

In order to qualify for a baccalaureate degree a student must:

1. Comply with the entrance requirements for normal matriculation.
2. Meet the attendance requirement.
3. Receive passing grades in all courses required for the degree.
4. Attain a minimum grade point average of 2.0 for the entire curriculum. (Transfer students must maintain a 2.0 average in courses taken at the University. Transfer hours are not included in determining the Western New England University grade point average.)
5. Attain a minimum grade point average of 2.0 in the major.
6. Complete at least 30 credit hours at Western New England University.
7. Complete at least 24 of the last 30 credit hours used in satisfaction of the degree requirements with courses offered by programs of Western New England University.
8. Complete an Application for Degree form, which will place the student's name on the list for October, February, May, or August degree conferral, as appropriate.

### **Qualifications for a Second Baccalaureate Degree**

In order to qualify for a second baccalaureate degree, a student must:

1. Complete thirty (30) additional hours
2. Meet the new requirements for the second degree
3. Allow a year to lapse between the awarding of the first degree and the second degree

### **When a student wishes to return for a second degree:**

1. Student may return to the same College by simply requesting the same from Academic Dean
2. Student may transfer to a different College by using the Change of Major form. In this instance, the previous dean will indicate the degree already earned.
3. Academic honors for the first degree will be based on the first 120 hours completed, or will be determined at the end of that semester in which the student completes 120 hours and fulfills the requirements for graduation.
4. Student may not earn academic honors for a second degree.

### **Award of Degrees Policy**

The University does not guarantee the award of a degree or a certificate of satisfactory completion of any course of study or training program to students enrolled in any instructional or training program. The award of degrees and certificates of satisfactory completion is conditioned upon satisfaction of all current degree and instructional requirements at the time of such award, compliance with all University policies and regulations, as well as meeting bona fide expectations of the faculty.

### **Academic Advising and Student Responsibilities**

Academic advising at Western New England University is framed against the University Mission Statement and is guided by a commitment to student academic progress and personal growth. Specifically, advising is intended to enhance and support student learning in an atmosphere of personal concern. Advising seeks to engage intellectual growth and self-discovery, and is carried out through a consistent exchange between student and advisor. That shared relationship thereby attempts to prompt students to develop decision making skills, set realistic expectations, and practice the necessary coping strategies to attain their educational, life, and career goals.

Each full-time student is assigned a faculty advisor. In the freshman year of full-time study, the academic advisor is normally assigned on the basis of enrollment in First Year Seminar. After the sophomore year and beyond, students are normally assigned or may choose an advisor according to the academic department in which the student's major is contained. Students who are undecided remain with their current advisor or are assigned to the Academic Support Center (Campus Center Room 137, or 413.796.2027) until a major is declared. Academic advising is provided for part-time students through the appropriate college. Although the advisor should be consulted on matters of curriculum, the ultimate responsibility for decision on the student's program of study remains with the student. Furthermore, each student holds the ultimate responsibility to understand degree requirements and to plan for orderly fulfillment.

It is important that students work with their academic advisors to develop an academic plan enabling them to complete many of the fundamental General University Requirements by the end of the sophomore, or second, full year of study. While this may not always

be possible due to schedule limitations of certain programs or other schedule anomalies, students should strive to acquire the prerequisite skills and knowledge necessary to succeed in their major programs. For example, students will need to have skills in research and writing in order to understand and complete assignments in upper division courses in and outside of their major fields of study. Students should also consult their advisor to choose elective courses that both broaden and deepen their knowledge of disciplines that are important for success and well being beyond the University experience.

### **Degree Audit**

An automated degree requirement system, known as a Degree Audit, assists students and advisors in assessing the progress of a student's program of study. It enables students and advisors to project the orderly fulfillment of their curriculum plan. It includes a record of all the student's courses completed to date and their courses in progress, and serves as an unofficial projection of courses remaining in a degree program.

A Degree Audit can also be used to determine the progress status of degree programs other than the currently declared major. In other words, if a marketing major wants to determine the viability of becoming a management major, a trial Degree Audit can be retrieved and populated with all courses taken to date by a student, along with the remaining degree requirements.

While a Degree Audit is a useful tool for planning the orderly fulfillment of degree requirements, students and advisors must realize it is not a replacement for the official academic transcript, nor should it be used as a substitute for verifying official degree requirements. The University catalogue that the student has matriculated under, is the primary source.

## **Policies and Procedures**

### **Student Contact Data**

Students are obliged to provide and maintain basic contact data such as permanent and local address, local telephone or cell phone, and an active email account if the account is other than the email provided by the University. This information shall be updated as necessary but must be provided prior to course registration each semester.

### **Student Schedules, Registration, and Adding or Dropping Courses**

In order to register for classes, the student typically meets with a faculty advisor to discuss the student's selection of courses. Consultation with a faculty advisor is required to initiate the course registration process. If the advisor is not available, students may seek consultation with the corresponding assistant dean. First year students may also consult with the Office of First Year Students & Students in Transition.

Once registration has been completed, students are expected to consult with the advisor (or Dean's Office if advisor is not available) before any additions, deletions, or changes can be made in the student's schedule. All changes must be reviewed by the advisor or dean. Changes also need to comply with established deadlines to add and/or drop a course. Instructor approval must also be obtained to add a class after it has met for the equivalent of one week.

For any change of schedule to be valid (after the first week of classes), including course withdrawals, the student must submit a schedule change form to Student Administrative Services (SAS). Absence from class or notifying the instructor without completing the drop form does not constitute withdrawal from a course.

### ***English and Mathematics Assessment***

In an effort to encourage student success, assessment in both English and Mathematics is required for all first year and transfer students prior to completion of course registration. Appropriate recommendations are then provided for course selection and registration, awarding of transfer credit and/or additional support services.

### ***Course Offerings***

Western New England University attempts to offer the widest possible selection of courses each year, but the University reserves the right to withdraw, modify, or add to the courses offered, or to change the order of courses in curricula as circumstances warrant.

The University further reserves the right to cancel under-enrolled courses. Students affected by such cancellations will be permitted to choose another course. In cases where other courses cannot be substituted, students may be permitted to waive requirements or receive full or partial refunds of tuition and other fees. The University also reserves the right to change the requirements for graduation, the tuition, and the fees charged as circumstances dictate and needs arise.

### ***Modifying a Student's Major Degree Program***

Any modification or change to a student's major degree program requires the written permission of the student's academic dean. The waiver/substitution form may be obtained in the student's academic dean's office.

Concurrent registration in more than one academic program leading to separate degrees is not allowed without the written permission of the appropriate academic dean. Permissions forms may be obtained in the student's academic dean's office.

### ***Change of Student's Curriculum/Major***

Changing a student's degree program/curriculum/major within the same college or changing a student's curriculum/major to a different college, requires the completion of an "Change of Major". The form is available online or in the student's academic dean's office.

Selection of a new, or additional major (2nd major) and/or a minor, may change projected graduation date. Although the academic advisor should be consulted on matters of curriculum, the ultimate responsibility for decisions on the student's program of study remains with the student. Furthermore, each student holds the ultimate responsibility to understand degree requirements and to plan for orderly fulfillment.

Changing a degree program may result in assignment to the catalogue requirements in effect at the time of the change.

### ***Taking Coursework at Another College***

Coursework towards a student's degree program may be pursued elsewhere only with the prior written permission of the student's academic dean. Permission forms are available in the student's academic dean's office. An official copy of the transcript needs to be sent to Student Administrative Services Office (SAS) upon completion of the prior approved coursework.

### ***Integrity of Scholarship***

Honesty in all academic work is expected of every student. This means giving one's own answers in any and all coursework, including but not limited to homework, quizzes, and examinations without help from any source not approved by the instructor. Written material is to be the student's original composition. Appropriate credit must be given for outside sources from which ideas, language, or quotations are derived.

Additional information on academic dishonesty may be found in the Student Handbook and the Academic Integrity Booklet.

### ***Attendance***

Students are expected to attend all class sessions for courses in which they are enrolled. However, it is the responsibility of the individual instructor to evaluate the importance of attendance in determination of course grades.

Accordingly, at the beginning of each semester, each instructor prepares a written statement setting forth the policy for consideration of absences, makeup examinations, and related matters, that will be in effect for that entire semester. The statement of policy on attendance, appropriate to each class, is made available at the first class meeting.

It is especially important for freshman students to establish the discipline of attending all classes and laboratories and to be properly prepared by having done all assigned reading and homework. It can be easily demonstrated that students who fail to attend class do not succeed in college.

### ***Midyear and Final Examinations***

Midyear examinations are given at the discretion of the faculty member teaching the course. The normal pattern is that final examinations are given in all courses in accordance with a schedule published by the Academic Schedule Office. In case an instructor decides not to give a final examination, the instructor must inform the college's Dean.

Final examinations must be given on the date and at the time scheduled by the Academic Schedule Office unless other arrangements have been approved by the college's dean and forwarded to the Academic Schedule Office. Under no circumstances are final examinations to be administered during the final week of classes. Further, during the last week of classes, hour examinations are permitted only in those courses where there is a final examination, semester paper, or semester project requirement due the week of final examinations. The chair of each department is responsible for the adherence of the latter policy by all members of the department. In addition, no examinations or quizzes shall be administered the last day of classes (if it falls on Monday) or on the last two scheduled days of classes (if the last day of classes falls on Tuesday or thereafter). This policy does not in any way relieve the student of responsibility for material covered in the last days of classes.

The faculty member in each course in which students are enrolled determines the value and weight of a final examination. All final examinations are given at the end of the semester according to a predetermined schedule. The anticipated schedule is normally published at the beginning of each semester. Students should note the exam schedule when arranging travel plans for departure at the end of the semester.

When preparing the exam schedule, every attempt is made to avoid scheduling more than two exams for each student in any given day. Should this situation occur, however, the Faculty Senate has adopted a policy to assist students in managing the conflict. In the case of a student who is scheduled for three final examinations on one day, the examination in the middle time is expected to be rescheduled at the convenience of both the student and the faculty member. The student must give notice to the faculty member of the middle exam no later than 10 days prior to the start of the examination period for that semester.

There are two exceptions, however, to the middle exam solution. The first is that if the student can move any of the three examinations to the examination for another section of the same course taught by the

same instructor, he or she must make that request of the faculty member if the move does not cause another conflict. The second exception is that if the middle examination is a common examination (multiple sections of the course all taking the same exam), one of the other two remaining exams will be rescheduled by joint agreement between the two faculty members. The student should make the conflict known to both faculty involved. If an agreement cannot be reached, a decision will be jointly made by the Deans of the Colleges in which these two courses are housed.

The final exam schedule is posted on the Academic Schedule Office's website, [www1.wne.edu/academicschedule](http://www1.wne.edu/academicschedule) and ASAP.

### **Interpretation of the Grading System**

The work of each student is graded according to the following scale. Figures indicate grade point equivalents:

Superior	A (4.0)	A- (3.7)	
Above Average	B+ (3.3)	B (3.0)	B- (2.7)
Average	C+ (2.3)	C (2.0)	C- (1.7)
Passing	D+ (1.3)	D (1.0)	
Failure	F (0)		

In certain courses (ED 380, MATH 130, SW 314, SW 409, SW 410, SW 411 and SW 412) a grade of "P" (Pass) is assigned if the course is satisfactorily completed. "P" has no grade point equivalent.

### **Repeating a Course**

Any course in which a grade of less than "C" was received may be repeated at any time during the student's enrollment at Western New England University. The official transcript shows the complete record, but the grade point average is computed on the basis of the most recent earned grade in each course. Credit for the course is awarded only once. This policy is noted when a transcript is sent out. In cases where a course grade of "F" has been assigned as a penalty for gross academic dishonesty, a student may not replace that grade in the cumulative GPA. The student may retake the course, but the resulting grade is counted as a separate course.

### **Incomplete Work**

I (Incomplete) — This grade is awarded only when work is not completed due to circumstances beyond the student's control (such as severe illness). The student has six weeks from the last day of final examinations to satisfy course requirements. Extensions may be granted only for continued circumstances beyond the student's control and must be approved by the instructor and the Dean of the college. The "I," which can be resolved only by the instructor, carries a grade point equivalent of 0.0. The "I" becomes an "F" for work not completed after six weeks or by the conclusion of an approved extension period.

### **Withdrawal from a Course**

To withdraw from a course, the student must obtain the advisor's or the Dean's signature on the course withdrawal form available from the Student Administrative Services (SAS) office. Absence from class without completing the form does not constitute withdrawal and may result in a failing grade. See section on Withdrawals and Refunds (p. 208) regarding payments.

W (Withdraw) — If the student withdraws from a course within the first two weeks, no grade is assigned. If a student withdraws after the

second week of classes, but prior to the last withdrawal date published in the final schedule for that semester, a "W" is assigned. However, a student may not receive a grade of "W" to avoid the consequences of a breach of academic integrity. A grade of "W" carries no academic penalty or prejudice.

### **Withdrawal from the University**

If it becomes necessary for full time degree students to withdraw or request a leave of absence from the University, an official form must be completed and filed with the Academic Support Center. This form will be made part of the permanent record maintained in Student Administrative Services (SAS). Prior to completing the withdrawal form, students are expected to consult with the Dean of First Year Students & Students in Transition in order to complete a formal exit interview. When such conditions as severe illness or absence from the area prevent a student from filing the withdrawal form in person, an application for withdrawal by mail is acceptable. A letter should state the reasons necessitating the withdrawal and should be mailed to the Dean of First Year Students. In the case of part-time or graduate students, withdrawal forms are filed with the academic dean's office of the college in which the student's major is administered. The date recorded by the reviewing administrator is considered to be the date of withdrawal. See the section on Procedure for Withdrawing (p. 208).

### **President's List and Dean's List**

To be placed on the President's List, a full-time student must be enrolled in courses carrying a minimum of 12 credit hours and achieve a semester grade point average of 3.80 or above.

A part-time student may qualify for the President's List by carrying a minimum of 12 credit hours cumulatively for the academic year and achieving a grade point average of 3.80 or above.

To be placed on the Dean's List, a full-time student must be enrolled in courses carrying a minimum of 12 credit hours and achieve a semester grade point average of 3.30 or above.

A part-time student may qualify for the Dean's List by carrying a minimum of 12 credit hours cumulatively for the academic year and achieving a grade point average of 3.30 or above.

### **Honors**

Honors are awarded at graduation for superior scholastic attainment. Students are recommended for honors if, in addition to satisfying all other requirements for the degree, they have completed a minimum of 60 credit hours at the University and have earned the required grade point average:

Cum Laude requires a grade point average of at least 3.30

Magna Cum Laude requires a grade point average of at least 3.60

Summa Cum Laude requires a grade point average of at least 3.80

Students who graduate with between 45 and 59 credit hours completed at the University and who have a grade point average in those courses of 3.50 or higher graduate "With Honors".

### **Academic Progress: Probation, Suspension, and Dismissal**

Student academic progress is reviewed each semester to assure consistency with defined standards. For the purpose of review, the number of credit hours specified in the standards is normally based on credits completed at Western New England University.

Full-time degree students with fewer than 24 credit hours attempted (excluding AP or high school to college credits) will be automatically placed on academic probation if they attain less than a 1.9 semester

grade point average at the end of their first term of enrollment. Part-time students must sustain a 2.00 cumulative GPA after the first 24 credit hours. Nondegree students must sustain at least a 2.00 cumulative average in order to continue registration beyond the first semester of enrollment.

Full-time degree students with fewer than 24 credit hours who attain less than a 1.00 or successfully complete less than 9 credits at the end of the first term of enrollment shall be automatically suspended for a period of one semester except as may be approved by the Dean of First Year Students & Students in Transition. Following any period of suspension, students may petition for reinstatement by submitting a request to the Dean of First Year Students & Students in Transition who will forward a recommendation to the appropriate Assistant Dean of Arts and Science, Business, or Engineering for approval.

Any full-time degree student whose first semester GPA results in being placed on probation must contact the Dean of First Year Students & Students in Transition prior to the date set forth in the notice of probation for the purpose of initiating an academic improvement plan. The academic improvement plan is meant to establish the conditions that the student must meet to continue at the University. After the first 24 semester hours attempted, part-time, nontraditional and off-campus students must initiate contact for the same purpose with appropriate academic administrative staff within one week of the release of grades from the previous semester or term. If after establishing an academic improvement plan, the student does not comply with the prescribed conditions of continuance, the student may be subject to immediate suspension or dismissal from the University with the right of appeal to the Academic Standards Committee. Any student who does not confer within the prescribed time listed in the original notification of academic standing shall be immediately suspended from the University for a period of one semester.

After the completion of the second semester of full time enrollment or after the first 24 credit hours of work attempted as a part-time student, students shall be automatically placed on academic probation if a semester GPA of less than 2.00 is earned. Unless otherwise approved, full-time students must also successfully complete 10 or more credits during each semester of full-time enrollment. Otherwise probation shall be automatically imposed. Once placed on probation, a student must confer with the Assistant Dean of the appropriate College or Dean of First Year Students & Students in Transition or other named staff prior to the end of the first week of classes of the next semester for the purpose of defining an academic improvement plan. The academic improvement plan shall be filed in the same manner and under the same conditions as would occur after the first semester of enrollment. If conditions stipulated in an academic improvement plan are not met, the student shall be suspended for a period of one semester with the right of appeal to the Academic Standards Committee.

A student on probation must achieve a minimum of a 2.00 semester grade point average during the next semester of enrollment and adhere to the completion of the specified number of credits determined at the time of review. If a 2.00 is not achieved or the minimum number of credits is not earned, the student shall be suspended for a period of not less than one semester with the right of appeal to the Academic Standards Committee. If the student chooses to appeal, the Academic Standards Committee shall consider the appeal and either impose suspension for a period of time or reinstate the student. In either case, the Academic Standards Committee may elect to specify conditions for future or continued enrollment. If, upon reinstatement, conditions are not fulfilled, permanent dismissal may be imposed immediately and enrollment for the semester voided with no expectation of recourse, financial or otherwise.

Additionally, following the completion of 87 credit hours (Arts and Sciences or Business) or 95 credit hours (Engineering), any student with a cumulative grade point average of less than a 2.00 overall or a 2.00 in the major shall be automatically placed on probation. The student placed on probation shall be referred for academic progress monitoring (p. 200) administered through the Office of First Year Students & Students in Transition (p. 199) prior to the beginning of the probation semester or not later than the end of the first week of classes and enter into a written agreement regarding the conditions upon which the student may continue at the University. If the stipulated conditions are not met, the student shall be suspended from the University with the right of appeal to the Academic Standards Committee.

The Academic Standards Committee shall meet at the end of both the fall and spring semesters to consider academic progress records. Students who have been previously suspended or whose suspension has been lifted through consideration of appeal are subject to dismissal with the right of appeal to the Academic Standards Committee.

When the opportunity to appeal suspension or dismissal for academic reasons is given, students must exercise that option by the date indicated in the written notice. If the option to appeal is not exercised, the intended action specified in the notice (dismissal or suspension) shall be automatically imposed. All matters relating to academic status are made part of the permanent record.

All notices of suspension and dismissal are mailed to the home address of the student by first class mail. A copy of the notice is also sent to the student's faculty advisor and the appropriate assistant dean.

Appeals of Academic Standards Committee decisions are allowed only if new information not previously disclosed is submitted in writing prior to the start of classes for the semester intended. This appeal will be reviewed by the Vice President for Academic Affairs with the resulting decision final and binding and without right of further review.

## **Special Academic Opportunities**

### **Accelerated Five-Year and Six-Year Engineering Programs**

#### ***Five-Year Bachelor/MBA Program***

This program allows undergraduate students in the Colleges of Arts and Sciences, Business, and Engineering to accelerate the completion of the bachelor's degree and to earn the popular and valuable Master of Business Administration (MBA) degree with just one additional year of study\*.

\*Available to all majors except for Education and Social Work.

Engineering majors may be admitted to the program prior to the end of their first year.

#### ***Five-Year Bachelor/MSA Program***

This program allows undergraduate accounting majors in the College of Business to accelerate the completion of both the bachelor's and master's degrees in Accounting. Students can earn the Master of Science in Accounting (MSA) degree with just one additional year of study.

#### ***Five-Year Bachelor/MSEE Program***

This program allows undergraduate Electrical Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Electrical Engineering (BSEE) and to earn the master's degree in Electrical Engineering (MSEE) with just one additional year of study.

**Five-Year Bachelor/MSEM Program**

This program allows undergraduate Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Engineering and to earn the master's degree in Engineering Management (MSEM) with just one additional year of study.

**Five-Year Bachelor/MSME Program**

This program allows undergraduate Mechanical Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Mechanical Engineering (BSME) and to earn the master's degree in Mechanical Engineering (MSME) with just one additional year of study.

**Accelerated Six-Year Engineering/Law Program**

The College of Engineering's accelerated six-year BS/JD program offers qualified engineering students the opportunity to complete both their Bachelor of Science degree in their major area of study and their JD degree at the University in six years instead of seven. To be tentatively accepted into this unique program in the freshman year, students need a minimum SAT Math score of 650 and a minimum Critical Reading SAT score of 650 or ACT equivalent scores of 29 in English, Math, and Composite and a high school GPA of 3.5 or higher. Students not meeting these precollege requirements, but who have demonstrated superior performance in their studies at the University, may petition to be considered for the accelerated degree sequence at the end of their sophomore year.

Students need to maintain a 3.3 undergraduate GPA in order to maintain their tentative acceptance to the School of Law. Following the sophomore year, students take the LSAT and need to score above the 50th percentile of the previous year's matriculating Law School class. During the fourth year, students will be completing their BS degree and begin taking classes at the School of Law. These law classes are offered in the evening so there is no conflict with the engineering courses. The summer following senior year is spent completing the requirements of the first year of law school and puts the student on track to complete the law degree in just two additional years. These final two years of the program follow the standard School of Law timetable.

**Accelerated Six-year Biomedical Engineering/Law Program**

Qualified Biomedical Engineering students have the opportunity to accelerate their attainment of a BS in Biomedical Engineering (BME) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their BME advisor. The first two years of study will remain the same as the BME curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Accelerated Six-Year Civil Engineering/Law Program**

Qualified Civil Engineering students have the opportunity to accelerate their attainment of a BS in Civil Engineering (CEE) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their CEE advisor. The first two years of study will remain the same as the CEE curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Accelerated Six-Year Computer Engineering/Law Program**

Qualified Computer Engineering students have the opportunity to accelerate their attainment of a BS in Computer Engineering (CPE) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their CPE advisor. The first two years of study will remain the same as the CPE curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Accelerated Six-Year Electrical Engineering/Law Program**

Qualified Electrical Engineering students have the opportunity to accelerate their attainment of a BS in Electrical Engineering (EE) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their EE advisor. The first two years of study will remain the same as the EE curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Accelerated Six-Year Industrial Engineering/Law Program**

Qualified Industrial Engineering students have the opportunity to accelerate their attainment of a BS in Industrial Engineering (IE) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their IE advisor. The first two years of study will remain the same as the IE curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Accelerated Six-Year Mechanical Engineering/Law Program**

Qualified Mechanical Engineering students have the opportunity to accelerate their attainment of a BS in Mechanical Engineering (ME) and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the "Six-year Engineering/Law Program" section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their ME advisor. The first two years of study will remain the same as the ME curriculum. The third year will change slightly to

accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

### **Advanced Placement (AP)**

The University will normally grant credit for AP subjects taken in high school and for which a student scores a 3 or higher on the standardized AP exam. A score of 4 or 5 may be required to obtain credit for a specific course. Appropriate credit depends on the specific academic program to which the credit is applied. In some circumstances, the credit will be applied to an elective rather than a course required for the major. The dean's office of each college will determine how the credits will be applied for courses taught in that college.

### **Air Force ROTC**

The Aerospace Studies Program, also known as Air Force ROTC, is unique in that it is the only agent through which a student can, upon graduation, receive a commission as an officer in the United States Air Force. To earn this commission, a student must enroll in Aerospace Studies courses, pass an Air Force Officer Qualifying Test, be physically qualified, attend an officer field training summer camp, and receive a baccalaureate degree.

Upon graduation and commissioning, the officer will normally serve a period of active duty in the Air Force. To assist the student while in college, the program offers a variety of one, two, three and four year scholarships, and provides a monthly stipend of \$250-\$400 to all contracted cadets, as well as \$600 per year for textbooks. Students in good academic standing in any recognized major are eligible for scholarships and subsequent commissions.

There are limits to the amount of ROTC credit that can be counted toward a degree. Students majoring within the College of Arts and Sciences are limited to 15 credit hours, College of Business students are limited to 12 credit hours, and College of Engineering students are limited to 3 credit hours, which must be at the 300-level or above.

For additional information about this program, please contact Air Force ROTC at 413-545-2437 or email [usairforcerotc@wne.edu](mailto:usairforcerotc@wne.edu). One can also view the website at [www.umass.edu/afrotc](http://www.umass.edu/afrotc).

### **Army ROTC**

Full-time undergraduate and graduate students may participate in the Army ROTC program at Western New England University. Upon successful completion of the program, students receive commissions as Second Lieutenants in the U.S. Army (Active or Reserve). Classes are open to all students and may be taken for general education credits with no obligation.

Students who commit to pursuing the commission receive a \$350-\$500 per month stipend while participating in ROTC. Four, three, and two year scholarships are available to students who apply and meet the requirement to contract into ROTC to pursue an officer commission. These scholarships cover tuition, laboratory fees, and books and also pay each recipient a \$450-\$500 per month stipend.

Special programs exist for students to work with four semesters remaining to earn their degree and for students who desire to pursue a four semester master's degree. This program allows the student to complete all ROTC requirement in only two years and gain a commission as a Second Lieutenant. The classes for the first two years are waived in this option.

Any Army ROTC student who desires a commission in the Army National Guard or Army Reserves can obtain a Guaranteed Reserve

Forces Duty Scholarship. For further information refer to contact listed below.

There are limits to the amount of ROTC credit that can be counted toward a degree. Students majoring within the College of Arts and Sciences are limited to 15 credit hours, College of Business students are limited to 12 credit hours, and College of Engineering students are limited to 3 credit hours, which must be at the 300-level or above.

For information contact the assistant professor of Military Leadership at the Western New England University ROTC building; 413-782-1332, or [usarmyrotc@wne.edu](mailto:usarmyrotc@wne.edu).

### **Air Force/Army ROTC College Incentive**

Western New England University will provide up to full (double occupancy) room and board to any student receiving a four-year ROTC scholarship. If the student selects Gateway, Evergreen or Southwood, for residence, they will receive full (double occupancy) room and \$1,500. If the ROTC scholarship is less than full tuition, the incentive could be reduced accordingly.

Other students, including Advance Designees, who receive ROTC scholarships after enrolling at the University, will receive full (double occupancy) room during the period that they qualify for the ROTC scholarships.

The incentive will be considered part of all gift aid a student may receive from the University based on merit or need. In no case will the total gift aid provided by the University and external gift aid exceed the student's direct cost of education.

### **Auditing**

Subject to space limitations, a student may audit a course if granted approval by the instructor in which the course is offered. Auditing serves to enable a student to study the subject matter of a course when a grade is neither required nor desired. An audit carries no credit, has no grade point equivalent, and is recorded simply as "Audit." A student intending to audit a course should consult the Student Administrative Services (SAS) office for the proper procedure. (See the "Fees (p. 206)" section.) See the academic calendar for deadline to change from "audit to credit" status or "credit to audit" status.

Graduate courses in the Colleges of Arts and Sciences, Business and Engineering may be audited on a space-available basis by alumni who have completed bachelor's or master's degrees at Western New England University and who also have the listed prerequisites for the course selected. Courses in the School of Law are not available for alumni auditors. The University does not maintain any record of registration or completion of courses by alumni auditors.

### **Certificate Programs**

Western New England University makes several Certificate Programs available to those who do not want a degree, but who want specialized training that goes beyond a few courses in a subject. There are undergraduate certificate (p. 168) programs in chemistry and communication. There are graduate certificate programs in engineering, leadership and a certificate in Applied Behavior Analysis.

### **Center for Teaching Excellence**

The Western New England Center for Teaching Excellence is designed to provide faculty with access to cutting-edge, empirically validated teaching strategies. Through workshops, faculty presentation, and consultation, the Center serves as a repository for teaching related information and gives students access to faculty who

are well trained to be excellent in and out of the classroom. Founded in 2011, the Center will continue to build and develop programs focused on teaching and teaching related activities.

### **Credit for Prior Learning**

Undergraduate students may satisfy up to 30 credit hours of their degree requirements through demonstration and documentation of prior learning. Outlined below are several vehicles through which prior learning may be assessed.

Note: This policy does not apply to Criminal Justice or Law Enforcement majors, who must consult the requirements specific to their degree.

### **College-Level Examination Program (CLEP)**

This nationwide program allows undergraduate students to demonstrate academic competence and obtain college credit by examination. Several general and subject area examinations are available. The subject matter of the examination taken must be applicable to the student's curriculum, but may not include foreign language in the student's native language. The student's academic dean must be notified of the intent to take such examinations. The scores must be submitted to the appropriate school for evaluation. CLEP credit may not be used to meet upper-level course requirements.

### **Credit for Nontraditional Educational Experience**

The University will review, for possible credit, educational programs sponsored by non-collegiate organizations such as business, industry, government, professional, voluntary associations, and work place experience. Decisions to award transfer credit are based primarily upon *The National Guide to Educational Credit for Training Programs*, published by American Council on Education, and *The Directory of the National Program on Non-collegiate Sponsored Instruction*, published by the Board of Regents of the State of New York. In addition, courses and training obtained through the Armed Services will be reviewed on the basis of the recommendations made by the American Council on Education in *The Guide to the Evaluation of Educational Experiences in the Armed Services*.

### **Portfolio-based Credit**

The deans may award transfer credit for portfolio-based credits for prior learning that have been assessed by Charter Oak State College or other regionally accredited colleges or universities.

Students who are interested in obtaining more information about portfolio assessment should contact the Admissions office for referral to Charter Oak State College where appropriate.

### **Cooperating Colleges of Greater Springfield (CCGS)**

Western New England University, in cooperation with seven of the area's public and private institutions, has established a cooperative association designed to enhance the educational experience through the use of cooperative programs and services. Those services include inter-college library privileges, joint student activities, academic cooperation, and student activity calendars.

Known as the Cooperating Colleges of Greater Springfield (CCGS), the association was formed in 1970 by the presidents of the member institutions: American International College, Bay Path College, Elms College, Holyoke Community College, Springfield College, Springfield Technical Community College, Western New England University, and Westfield State University.

CCGS also sponsors an eight-college exchange program. Under this plan for curriculum enrichment, any full-time undergraduate who has

paid tuition at their own home college may take up to two courses or up to eight credit hours per semester each semester at any one of the other CCGS institutions, provided that the courses are not offered at the home institution and that seats are available at the host institution. Part-time students attempting at least six credit hours in a degree program are also qualified to participate in the CCGS program. The above-stated conditions may not apply to summer sessions, evening classes, winter session, continuing education classes, and online courses. Information concerning additional guidelines and registration procedures may be obtained from the Student Administrative Services (SAS) office.

### **Credit-in-Escrow**

Qualified high school students may take regular college courses during the regular semester or in the summer as they complete their high school studies.

### **Exploratory Program**

Recognizing that many students have not chosen a career path at the time of admission, the University offers direction and guidance through the Exploratory Program. Instead of selecting a major course of study, those students who prefer to defer such a selection may elect the Exploratory Program. The Exploratory Program has no specific course requirements. It provides special advising and guidance about career choices.

The selection of a major course of study is made before the end of the sophomore year. After declaring a major, the student leaves the Exploratory Program and follows the regular curriculum of the chosen program.

### **First Year Seminar**

To enhance the first-time student's acclimation to collegiate study, the University provides opportunities to develop the skills and methods that will promote academic success and personal development. In the First Year Seminar courses (LA 100, BUS 101, ENGR 102) students explore such topics as goal-setting and decision-making, time management, problem solving, critical thinking, information literacy, public-speaking skills, personal identity, and an introduction to a major, or exploring fields of study.

### **Global Scholars Program**

The Global Scholars program provides Western New England University students with the opportunity to distinguish themselves by developing an understanding of another region or nation outside of the United States through university coursework and international study experiences. While the structure of each Global Scholars program is determined and overseen by the College in which the student is enrolled, all Global Scholars programs include the following elements:

- An introductory experience or course
- A period or periods of international study abroad
- Completion of a sequence of courses in international issues, area studies, or foreign language
- An integrating or capstone experience or course Each Global Scholars program includes activities that may be used to satisfy university-wide Learning Beyond the Classroom (LBC) requirements. In addition, all Global Scholars are encouraged to participate in other globally-focused opportunities on campus.

Additional details regarding specific Global Scholars requirements are provided in each College's catalogue section:

College of Arts and Sciences (p. 32) and College of Business (p. 103), the College of Arts and Sciences Special Academic Opportunities (p. 33) and the College of Business Special Academic Opportunities (p. 104) sections, or the College of Arts and Sciences, and College of Business web sites.

### **Admission**

Please see the specific College's websites for further details on these special academic opportunities:

#### **Global Scholars Courses**

Recognizing the importance of a global perspective to the conduct of business today, the College of Business provides enhanced opportunities for its students to develop both intercultural competence and an expanded worldview. The Global Scholars program, which integrates intercultural course work and experiences, is open to students in any business major. Those students who satisfactorily complete all requirements will receive the Global Scholar designation on their University transcript and at Commencement.

#### **College of Business Special Academic Opportunities (p. 104)**

##### **Grand Challenges Program**

Western New England University is proud to be among an elite group of institutions in the nation to offer the Grand Challenge Scholars Program of the National Academy of Engineering (NAE) to our students. The Challenge allows qualifying students to be able to supplement their education with specific curricular components that address the five areas of the Grand Challenge:

- Research experience
- Interdisciplinary curriculum the NAE refers to as "Engineering+" These span the disciplines of public policy, business, law, ethics, human behavior, etc.
- Entrepreneurship
- Global dimension
- Service learning

By focusing their academics in these areas, students will have the educational foundation to take on the challenges of the future.

Summary of Five Grand Challenge Curricular Components

##### **Selection of Grand Challenge Scholars (GCSP) and Anticipated Involvement**

All engineering students will be invited to participate in the Grand Challenge Scholars Program during freshman year, with *full* appointment occurring during the junior year. Each academic year will require the completion of tasks with increasing involvement in the program, culminating in the Senior Design Project and/or significant research experience in a Grand Challenge area.

Grand Challenge Scholars Program scholars will be appointed by the Program Director upon the recommendation from a committee comprised of his/her academic advisor, Assistant Dean, and an at-large member (e.g., Western New England University faculty outside of the College of Engineering, a Western New England University staff member, industrial advisor, or alumni). This committee reviews and assesses the required materials, the portfolio, and present and future plans. The committee also suggests activities, projects, and internships and Research Experience for Undergraduates (REUs) to promote the intramural and extramural activities in the GCSP.

A summary of the four-year participation and appointment process is as follows:

**Freshman year:** All students are invited to explore possibilities of GCSP. Students complete a brief application to inform their academic advisor and the program director of their interest.

**Sophomore year:** Students apply for *conditional* appointment to GCSP with a second application and present their portfolio with evidence of their initial commitment.

**Junior year:** Students apply for *full* appointment to GCSP with a proposal and academic plan for completing research and course requirements. They present their portfolio with evidence of commitment and work completed.

**Senior year:** Students meet with their academic advisor and GCSP director and committee to assess their progress in order to assure that GCSP requirements are met and documented. The students present their portfolio with evidence of commitment and work completed.

After freshman year, conditional and full appointment into the Grand Challenge Scholars Program will be based on achieving and maintaining a minimum 2.70 cumulative GPA, satisfactory academic progress, selective service status as required, and full-time status. It is strongly suggested the student maintain a minimum 2.70 major *and* cumulative GPA. Additionally, the committee will review the student's materials to determine that all requirements are met, and subsequently grant approval for continuation and completion of the GCS program.

##### **Grand Challenge Scholars Partners**

###### **Founding Members**

Duke University, Pratt College of Engineering

The Franklin W. Olin College of Engineering

The University of Southern California, Viterbi College of Engineering

###### **Members**

Arizona State University, Ira A. Fulton College of Engineering

Lafayette College

Louisiana Tech University, College of Engineering and Science

North Carolina State University, College of Engineering

St. Louis University, Parks College of Engineering, Aviation & Technology

The University of Tennessee, College of Engineering

Western New England University, College of Engineering

For more information, visit the National Academy of Engineering (NAE) Grand Challenge Scholars Program website.

##### **College of Engineering Special Academic Opportunities**

###### **High School Year in College (Early Admission)**

The high school student who is academically able and socially mature may combine the senior year of high school and the first year of college. At the end of the combined year, the student is granted a high school diploma and becomes a matriculating student.

## Honors Programs

Western New England University offers Honors programs in the:

College of Arts and Sciences

College of Business

College of Engineering

They are intended to give academically qualified and motivated students the opportunity to join a community and participate in challenging courses taught by some of the University's best faculty. The programs allow students to broaden their education by taking courses in a variety of disciplines with Honors students from other majors, and by exploring topics that cross disciplinary boundaries. The programs also encourage students to take an active part in leadership activities related to Honors.

### Admission

Students who have been admitted to Western New England University, including transfers, will be contacted by their respective Colleges regarding Honors Program admission.

Please see the specific College's websites for further details:

Arts and Sciences Honors program

Business Honors program (p. 104)

Engineering Honors program (p. 135)

### Honors Courses

All Honors courses are designed to fit graduation requirements. The courses are often small seminars, sometimes taught by pairs of professors from different disciplines. Whatever the topic, Honors courses encourage students to develop and support their own ideas through critical reading, writing, analysis, and discussion. Students who complete six Honors courses (18 credit hours) and a senior project will be recognized with University Honors at graduation.

### Senior Honors Project

Each senior honors student works closely with a faculty advisor to plan and execute a final project of his or her choice. Students have virtually complete freedom in their choice of topic, but most opt for a topic within their majors. Interdisciplinary topics are entirely acceptable. This project is worth at least 3 semester-hours of credit, and will normally take the form of an independent study; however, students who are already required to do an appropriate senior project for their major may, with approval, submit this as their honors project instead. All honors projects must be approved and evaluated by the Honors Curriculum Committee.

### Maintaining Honors Status

Students in the Honors Program must maintain a 3.3 overall GPA to graduate with University honors. Any student whose cumulative grade point average falls below 3.3 will be given two semesters during which to restore their cumulative GPA to 3.3 or better. Students whose GPA remains below 3.3 for a third semester will be dismissed from the program, although they may reapply if they subsequently raise their GPA to an acceptable level.

### Independent Study and Special Arrangements

A limited number of qualified students are accorded the opportunity to pursue course work through supervised independent study. Students must have junior or senior standing plus a minimum grade point average of 3.0 overall or in the major field. In general, such

study should be of mutual interest to the student and faculty supervisor, should be of an advanced nature, and should include work not normally covered in the classroom. Credit may vary from one to three credit hours. Only six credit hours of independent study credit may count toward the degree.

In order to enroll in an independent study course, the student must make arrangements prior to registration. Applications for independent study are available from the appropriate academic dean. The application must be completed and signed by the student, the faculty supervisor, the faculty supervisor's department chair, and the student's advisor. If the student's academic dean approves the application, the student is given a form authorizing registration for the study.

### Special Arrangement

A Special Arrangement course is designed for students who cannot fit a regularly offered course into their schedule. An arrangement is reached with a faculty member whereby the student can complete the course in a nontraditional format without sacrificing standards of requirements.

In order to enroll for a Special Arrangement course, the student must make arrangements prior to registration. Applications are available from the appropriate academic deans. The application must be completed and signed by the student, the faculty supervisor, the faculty supervisor's department chair, and the student's advisor. If the student's academic dean approves the application, the student is given a form authorizing registration for the course.

### Individualized Programs of Study (Integrated Liberal Studies)

For the student who does not want to pursue a traditional major program, the integrated liberal studies program provides the opportunity to construct an individualized major. Such a program combines a selection of related courses from two or more disciplines according to the interests and goals of the student.

Students who wish to devise and pursue such a program should request permission and guidance from the academic departments in which they propose to do a substantial part of the work. Final approval of such a program rests with the dean of the College of Arts and Sciences upon recommendation of the departments concerned. No request for an integrated liberal studies major will be considered earlier than the end of the freshman year or later than the beginning of the senior year.

The following guidelines serve as minimum requirements for an integrated liberal studies major:

1. The general course requirements for the BA degree shall apply.
2. An integrated liberal studies major shall offer a minimum of 36 credit hours. At least 30 of these shall be courses at the 300-400 level.
3. Only courses at the 200 level or above may be counted toward fulfillment of the integrated liberal studies major.
4. A minimum of the minor in business administration is required of any student desiring to do a substantial part of the work within the College of Business. However, no more than 25% of the total coursework can be College of Business courses.

### Internships

In any discipline, qualified juniors and seniors may undertake an internship for academic credit with an approved agency, organization, or business.

Internships have a single purpose: to further the student's knowledge in a specialized area in a way not customarily available within the regular classroom setting.

Credit for internships varies from one to three credit hours. There are limits to the amount of internship credit that may be counted toward the degree: in the College of Arts and Sciences and the College of Business, students are limited to six credit hours; in the College of Engineering, students are limited to three credit hours. College of Business students are limited to one non-profit board field experience. A student must have completed at least 57 credit hours and have a minimum GPA of 2.5 overall and in the major, except where an internship is required in the major, or obtain special permission of their dean to undertake an internship.

To enroll in an internship for academic credit, a student must make arrangements with the Career Development Center, prior to registration. An internship application must be completed and signed by the student, the academic advisor, the department chair, and the internship coordinator.

A student may also pursue a nonacademic internship to further enhance their knowledge in a specialized area.

### **Undergraduate Research**

A limited number of qualified undergraduate students may undertake supervised research if they show both interest in and aptitude for independent and creative work. Applications may be made for research in any of the disciplines in which faculty are willing to involve students. When such research is conducted, students must submit written reports for approval by the faculty of the department in which the work was conducted. The supervising faculty member and the department chair must approve grades for such work.

In order to enroll for undergraduate research, the student must make arrangements in writing prior to registration. Applications are available from the deans of the Colleges of Arts and Sciences, Business, and Engineering. Applications must have the signatures of the student, the faculty supervisor, and the department chair. If the dean of the College approves the application, the student will be given a form authorizing registration for the work.

### **New England Center for Children Program**

Western New England University students interested in applied psychology and the education of students with autism and other special needs have the opportunity to spend either a full semester or a full year at the New England Center for Children. This facility, located near Boston, offers courses in applied behavior analysis and provides students with supervised experience working with children with autism. Interested students should consult with the chair of the Department of Psychology.

**Selection of Students:** Applications will be reviewed by the Department of Psychology and forwarded, along with the recommendations of the department, to the New England Center for Children. The Center will select the final participants.

### **Pre-Law and 3+3 Law Program**

Western New England University has offered legal education for nearly a century, and the Western New England University School of Law provides an excellent opportunity for those who wish to pursue the graduate professional degree in law.

Preparation for law school is not a matter of taking prescribed courses or majors. Law schools customarily do not encourage undergraduates to major in any particular subject. Students are generally successful in law school if they succeed in any major that develops skills in

reading, writing, and critical thinking, and if they do well on the Law School Admission Test (LSAT).

Pre-law students may choose any major including the pre-law curriculum within Integrated Liberal Studies. Students considering a legal education should pursue their individual interests through those courses that are most likely to foster success in American law schools (courses that improve written and oral communication, provide readings about a wide range of human experience, and develop reasoning skills).

Qualified Western New England University students who want to attend Western New England University School of Law can earn their bachelor's and Juris Doctor degrees in just six years instead of seven in the 3+3 Law program. To qualify for this program, students must have a minimum undergraduate grade point average of 3.3 and score above the median LSAT for the previous year's School of Law matriculants. Students who qualify can enter the School of Law in the fall of their fourth full-time undergraduate year and receive their bachelor's degrees at its end. They are eligible to obtain their Juris Doctor degrees after two more years of study.

It is not possible, however, for all majors to qualify for the 3+3 Law program. Chemistry, Computer Science, Mathematics, Social Work, and most engineering programs require too much sequential work in those disciplines to allow completion in three years. Biology majors would require some summer course work in order to complete this program.

In order to apply for this program, transfer students must successfully complete at least 45 credit hours of undergraduate studies at Western New England University. Students considering a career in law are eligible for membership in the Pre-Law Society, which provides cocurricular activities for pre-law students. Among the society's activities are workshops on selecting and applying to law schools; field trips to observe law classes; mock trials; and films, lectures, and discussions designed to clarify the responsibilities and privileges of the profession of law.

The office of the pre-law advisor maintains files of reference materials on law schools, the Law School Admissions Test, and other subjects of interest to pre-law students. Regardless of major, students thinking about attending law school should consult with the pre-law advisor, Associate Professor Peter Fairman, Department of History and Political Science, at the earliest opportunity.

### **Pre-Medical and Pre-Dental**

Pre-medical and pre-dental students are not restricted to a specified major but are encouraged to select a major that is most consistent with their interests and that offers as many alternatives for postgraduate study or employment as possible. Students in Arts and Sciences, Business, and Engineering are able to pursue a pre-med program. Students should consult with their deans in selecting appropriate courses.

The suggested sequence of courses: BIO 107, BIO 108, BIO 117, BIO 118; CHEM 105, CHEM 106, CHEM 209, CHEM 210, CHEM 219, CHEM 220; PHYS 123, PHYS 124; MATH 123, MATH 121.

Additional suggested courses would include: sociology, psychology, and biochemistry. As early as possible, all premedical and pre-dental students should consult the dean of the College of Arts and Sciences who will arrange for proper advising prior to the selection of courses. The recommended course sequence is designed to meet the requirements for entrance into most American medical and dental schools; it is the responsibility of the student to ensure that they take all requirements of a particular program. Students are cautioned, however, that admission to such schools is highly competitive.

## Service Members Opportunity College

Western New England University has been designated as an institutional member of Service Members Opportunity Colleges (SOC), a group of over 400 colleges and universities providing voluntary post secondary education to members of the military throughout the world. As a SOC member, Western New England University recognizes the unique nature of the military lifestyle and has committed itself to easing the transfer of relevant course credits, providing flexible academic residency requirements, and crediting learning from appropriate military training and experiences. SOC has been developed jointly by educational representatives of each of the Armed Services, the Office of the Secretary of Defense, and a consortium of 13 leading national higher education associations.

## Study Abroad

### *Why Study Abroad?*

Western New England University provides numerous study abroad opportunities. Besides being culturally rewarding and intellectually stimulating, study abroad will enhance your career opportunities and graduate school qualifications. By gaining an appreciation of other cultures, improving your foreign language skills, and becoming more familiar with the global marketplace, you'll open your mind to new possibilities and in the process learn as much about yourself as you will about your host nation.

### *Are There Academic Requirements?*

The foreign university specifies the required grade point average but in most cases you'll be able to participate as long as you are in good academic standing.

### *What About Costs?*

Besides airfare and possible differentials in costs of living, the costs are usually equivalent to what it costs to attend Western New England University for a similar time period. However, additional expenses will occur for those who are adventurous and enjoy traveling. Financial aid, either from the institution or government, can be carried over.

### *Are Internships and Independent Studies Available?*

Yes, internships and independent studies are available at most study abroad locations. Internships are especially valuable for all students who are interested in pursuing international opportunities.

### *Do I Need to Know A Second Language?*

While most classes are taught in English, you will probably want to seek out opportunities to learn the native language. You can choose programs that are specifically designed to improve your foreign language skills.

### *In What Countries Can I Choose To Study?*

You can make arrangements to study at colleges and universities throughout the world. Pick the nation where you want to live, study and work. Western New England University will facilitate your international learning experience for one or two semesters. Special opportunities exist for all students to study in Mexico, Ireland, Scotland, England, Germany, France, Spain, Greece, Australia, New Zealand, Cuba and some other countries during winter, spring, and summer breaks.

For information on any of these programs, students should contact Dr. Saeed Ghahramani, Dean of the College of Arts and Sciences, director of the Study Abroad Program, or Dr. Josie Brown-Rose, assistant director of the Study Abroad Program.

## Up with People

Through the Up with People partnership, Western New England University students can spend a semester traveling across three continents while experiencing personal growth, leadership training, service learning, and involvement in performing arts. A student completing a semester at Western New England University with a grade point average of 2.5 or better and who has successfully completed 27 credits or more is eligible to participate in the Up with People Program. For details about this opportunity, students should consult with the assistant dean of Arts and Sciences and visit [www.wne.edu/upwithpeople](http://www.wne.edu/upwithpeople).

## Summer Session and Winter Session

Western New England University is in session throughout the year. To supplement the regular academic year, there is a summer session with courses offered both day, evening, and online, and a winter session between the fall and spring semesters. Information about these course offerings and their prerequisites is customarily available by March for the summer session and November for the winter session. Schedule information may be obtained by contacting the Office of Academic Scheduling, [www1.wne.edu/academicschedule](http://www1.wne.edu/academicschedule) or the Student Administrative Services (SAS) office.

## Taking Courses At Another College

A matriculating student who wants to take a course at another institution must obtain prior approval from their college's assistant dean. Grades less than C- will not transfer. After completing 70 or more credits at Western New England University, a student is only permitted to transfer one course to Western New England University from a community college or another institution that does not grant the baccalaureate degree.

## Washington Semester

Western New England University participates in the Washington Semester Program offered by American University in Washington, DC. This program, which is open to juniors and seniors, provides an opportunity to study and intern in Washington, DC. Programs are offered in American Politics, Journalism, Justice, Foreign Policy, International Business and Trade, Transforming Communities, Public Law, Economic Policy, Contemporary Islam, International Environment and Development, Israel Studies, International Law and Organization, Peace and Conflict Resolution. Students may intern with government agencies, members of Congress, the courts, private businesses, public interest groups, professional organizations, newspapers, television studios, theaters, or museums. Interested students should contact Dr. Donald Williams.

## Writing and Reading Program

### *Writing Proficiency*

In the belief that clear writing is not only central to academic success but also the single most important indicator of professional achievement, the University encourages students to think clearly and to discipline their self-expression. In every course, regardless of the student's major, professors expect students to demonstrate in clear and effective writing that they have assimilated the information and ideas presented. A portion of the grade in each course is determined by performance in written work.

To achieve this goal, the Writing and Reading Program and the Department of English have formed the writing and reading collaborative that determines standards for clear writing and has authorized the use of common handbooks across the curriculum. The Writing and Reading Program starts in the first year with the two 100 level courses in English writing and reading that are General

University Requirements. (A detailed description of the writing requirements appears in the English course descriptions online). The program continues in the sophomore, junior, and senior years with writing requirements specified by the student's major.

In support of this program the University has a Writing Center and offers tutoring services. The Center is equipped with two computer classrooms as well as print resources and a webpage. Trained peer tutors work with students at all ability levels in all phases of the writing process. Students may work on writing assignments in any course from across the curriculum, design individualized improvement programs, or work on personal writing projects.

## General University Requirements

### Foundations

Fundamental to every student's success in college and beyond is competency in four areas that provide the foundation for lifelong learning and for personal and professional effectiveness. These areas are mathematical analysis, communication, critical thinking, and computer competence, including information literacy. The University recognizes the importance of continuing development in these areas in the context of the student's major. The target level of competency in these areas will be determined and assessed by the major in which the student is enrolled. Following is a brief explanation of the importance of each foundation area with suggested courses that might satisfy the requirement.

#### *Mathematical Analysis*

Daily life and many professional and intellectual pursuits and success in college require an understanding and appreciation of mathematical reasoning and of mathematical problem-solving.

The ability to establish connections between real world phenomena and mathematical ideas, to analyze quantitative data, and to reason logically allows us to grasp complex issues and better meet the problem solving needs of our technological society.

Thus, it is crucial that students develop the ability to distill what is essential to a problem or situation, to express it using mathematical equations, to use principals of mathematics logically and creatively to solve these equations, and to interpret their solutions in the context of the original problem or situation.

Each student must take the two mathematics foundation courses designated by the College in which they are enrolled. A minimum grade of C is required in one of these mathematics courses for graduation.

#### *Communication*

Effective writing and speaking is important in virtually all human activities from informal exchanges with friends and family through the responsibilities of the work place to the highest professional and intellectual pursuits.

The ability to express ideas orally and in writing, using appropriate vocabulary and grammar and logical organization, allows us to communicate effectively with others in every dimension of our lives.

To develop skills in written communication, each student must take two foundation composition courses (unless exempted). Because writing and reading are closely related and because all students should have some college experience of literature, these courses also feature the analytic reading of nonfiction, fiction, poetry, and drama. Each student must complete these writing courses with grades of C or better.

To develop skills in oral communication, instruction will be provided as part of each student's first year curriculum as determined by the College in which they are enrolled.

#### *Critical Thinking*

The ability to think logically about personal, social, and professional problems is important in reaching satisfactory and defensible decisions. The educated person should be able to form and recognize sound arguments.

While critical thinking is an element in virtually every course, each student must take one course in which critical thinking is a major focus. The course will be specified by each College.

#### *Computer Competence and Information Literacy*

Understanding how computers function and how to use computer technology is increasingly necessary in many professional pursuits as well as in personal life. As a minimum, students should have the ability to use presentation, word processing, and spreadsheet software. They should also have the ability to access information on the Internet and existing databases.

Students should have the ability to identify, access, evaluate, and select information to fit defined needs and the ability to use that information in an ethical manner.

Each College will specify requirements to achieve computer competence and information literacy.

#### *Perspectives of Understanding*

In its Mission Statement, the University commits itself to developing in its students an appreciation of multiple perspectives of understanding. Perspectives are the systematic ways various academic disciplines view and interpret the world around us. Each perspective enhances the students' understanding of the complexity of the environment in which we live and of the richness of human experience. Ultimately these perspectives have the potential to deepen our judgments and inform our responses to the opportunities and challenges of life and work in the 21st century. They can help us to lead more responsible and fulfilling lives as individuals, family members, and citizens of democracy.

Perspectives courses significantly emphasize three components. First is the approach or method of analysis in the discipline; second is the factual foundation of the discipline; and third is the contribution of the discipline to a greater knowledge of contemporary issues. Perspectives of Understanding included in this requirement are Natural Science, Behavioral Science, History, Cultural Studies, Ethics, Aesthetics, and Integrated Liberal and Professional Learning as described below.

Students must complete a minimum of seven perspectives courses that collectively achieve the following requirements:

- All perspectives are covered.
- At least one is an integrated liberal and professional course in which two perspectives are typically presented in a team-taught offering.
- Two are natural science courses, each with laboratories, or two sequential courses in natural science, the first of which must have a laboratory.

Note: Comparative courses that combine two perspectives, such as behavioral science, history, cultural studies, ethics, or aesthetics will satisfy the requirement in both areas. However, students must still take a minimum of five perspectives courses in addition to the natural science courses.

### ***Natural Science Perspective (NSP)***

The science perspective cultivates familiarity with the vast realm of accumulated knowledge about the structure and functioning of the physical and biological world. Students should learn part of the factual foundation, including vocabulary, of at least one major area of science and should observe and practice the disciplined logic that scientists employ to discover and evaluate new knowledge.

### ***Social/Behavioral Science Perspective (SBP)***

The behavioral science perspective uses scientific methods to study the forces and processes that influence the behavior of individuals, groups, governments, and economies.

### ***Historical Perspective (HIST)***

Through historical inquiry, this perspective enriches insight into the political, social, economic, and cultural forces that have shaped the modern world, providing the context for future events.

### ***Global Cultures Perspective (CUL)***

The Global Cultures perspective gives students an understanding of the multi-cultural nature of contemporary society as it is constituted by individuals from different backgrounds, cultures and/or nations. This perspective increases students' awareness, understanding, and appreciation of how people from at least one other culture view the world.

### ***Ethical Perspective (Any PH excluding PH 110 or PH 204)***

The goal of the ethical perspective is to help students form rationally defensible ethical views to guide their behavior in all aspects of their lives. This requires heightening their sensitivity to ethical issues and providing them with a variety of tools for ethical problem-solving. It involves giving students experience in critical analysis of real-life ethical issues, coupled with a critical examination of the most influential techniques of moral decision-making and moral argument.

### ***Aesthetic Perspective (ART, FILM, MUS, and THTR)***

The aesthetic perspective regards objects in terms of the qualities that make them attractive in and of themselves. It puts natural or human creations in a picture frame and tries to appreciate their inherent richness. Whatever the objects, they are valued not for any utilitarian purpose but for their sensual and emotive effect, for their form, line, color, sound, texture, feeling, meaning.

### ***Integrated Liberal and Professional Perspectives (ILP)***

The integrated liberal and professional perspective makes clear the connections between the goals of liberal education and those of professional education. It compares and contrasts the values, perspectives, and assumptions of natural science, behavioral science, history, cultural studies, ethics or aesthetics to a perspective from a professional discipline.

### **Learning Beyond the Classroom (LBC)**

The University is committed to making learning beyond the classroom (LBC) a significant element of every students' academic program and personal experience. It is envisioned that through the process of applying their classroom learning to their experiences in the workplace, in the community, on the playing fields, and across the campus our students will not only enhance their learning, but will also begin to connect their learning more directly to the world in which they live. For these reasons, all students will be required to complete two different LBC experiences, one for every two years of full-time study.

Exemptions to the Learning Beyond the Classroom requirement may be applied according to the following circumstances.

- Transfer credit of more than 60 credits allows for consideration of exempting one LBC provided that the student projects degree completion within four semesters. If more than four semesters are required, the exemption does not apply. Once applied, the exemption is not altered if the projected degree completion date changes. Additional information may be obtained through the Director of Learning Beyond the Classroom.
- A maximum of one LBC can be exempted.
- AP, CLEP, IB or high school to college credit cannot be used in the exemption.
- Non-Traditional/adult learner students are exempt from the LBC requirement.

Normally each LBC experience will include:

1. a minimum of fifteen (15) hours of involvement in an activity that provides a demonstrable opportunity for the student to reinforce or enhance understanding of skills introduced in the classroom; and
2. completion of a minimum 1000 word reflection paper in which the student describes the activity or experience, relates the experience to learning introduced in their courses, and reflects on the value of this experience from a learning perspective.

LBC experiences may include:

1. internships, senior projects, study abroad, or no more than one course based experience with the same course code (e.g. SOC, FIN, etc.) that would incorporate an LBC opportunity. Exceptions can be made for internships within the same department, if they are vastly different in scope and goals;
2. structured group activities in such areas as student clubs and associations, athletic teams, etc.; and
3. individual workplace-based or service activities, on campus or off campus.

Evaluation of all LBC experiences will be through a member of the University's faculty or professional staff as determined by each College. Given the volume of LBC experiences processed each year, the Colleges may arrange for readers who are part of the University faculty or professional staff to ensure that students will be able to fulfill the requirement.

### **Personal Development**

All students are required to complete course work to assist them in their transition to the academic demands of college and in the development of knowledge and skills to support lifelong physical well-being.

### ***First Year Seminar***

First year seminars orient students to the scholarly community and assist them in their transition to the academic demands of college. Each College will develop courses to meet its needs (p. 200).

Exemptions to this requirement may be based on the following circumstances:

- Transfer credit of 27 or more semester hours from a two or four-year college derived from a full time course of study. Exemption may be further considered on an individual case basis, provided that a minimum of 21 credit hours are transferred through full-time study.

- Transfer credits cannot be from CLEP, AP, IB, or high school to college sources.
- Nontraditional/adult learners are exempt and substitute course credit is applied according to the student degree program.

In all cases of exemption, substitute credit must be applied, i.e. credits toward the degree are not exempt, simply the course.

### **Physical Education, Health, and Recreation**

All entering freshmen are required to complete two credit hours of physical education, health, and recreation (PEHR) for graduation unless the dean of the college in which they are enrolled has granted a specific written exemption. Exemptions to this requirement may be based on the following circumstances. Students should consult the Director of Physical Education for further information.

- Transfer credit in excess of 30 hours exempts both PEHR 151 and PEHR xxx.
- If transfer credits are in the range of 15-30, only PEHR xxx activity exemption can be applied. Physical incapacity, prior active military service, or unique life circumstance that would prevent or restrict full participation may also exempt PEHR.
- AP, CLEP, IB or high school to college credits cannot be used in the calculation of the exemption.
- Non-traditional/adult learners are exempt from the requirement and the equivalent credits.

**No more than two 100-level PEHR courses can be taken for academic credit or can be included in the calculation of a student's overall GPA.**

The PEHR requirement is satisfied by successfully completing PEHR 151 (Personal Health and Wellness) and one course from PEHR 153-199 (Lifetime Activity Series). The purpose of the requirement is to provide students with an understanding of current health issues and preventative health measures so that they have the tools necessary for continuing a healthy lifestyle. Students are expected to learn how to monitor their diets and to gain a practical understanding of the relationship between diet, exercise, and weight control. The activity series supplements the classroom work in "Personal Health and Wellness." Students enroll in one of several activities such as walking and jogging, aerobic dance, racket sports, golf, martial arts, personal fitness, strength and endurance training, women's defense training, and, mandatory for those students pursuing certification in elementary education, "Games Children Play."

### **Strategic Initiatives**

The Center for Strategic and Academic Initiatives' primary goal is international recruitment of students and development of undergraduate and graduate degree programs (traditional, professional, online, alternative/intensive scheduling, on-site, off site, graduate full- and part-time interdisciplinary, "boutique" in nature, in-house or outsourced, etc) as well as non-credit/certificate programs. The Center will serve as an incubator to implement credit and non-credit programs and degrees that the University determines should be launched to take advantage promptly of opportunities that are sought out or that present themselves and that permit the University to reach new audiences. In addition, the Center and the Office of Professional Development Programs is responsible for the development of new continuing education and non-credit opportunities to meet employer, employee, professional, and personal development needs within our region. This initiative may include the development and implementation of new graduate programs, and the development of other entrepreneurial opportunities.

### **Professional Development Programs**

The Office of Professional Development offers an array of professional development/education programs. Our conferences, seminars, noncredit courses, and certificate programs are offered through public formats and onsite at organizations. These programs are designed to help professionals quickly update or acquire the job-related skills and information that will enhance their ability to be successful in their chosen professions.

All of our onsite programs can be customized to meet your organization's needs. We welcome the opportunity to meet with you to discuss your specific training needs and design a proposal for your review. If meeting space or computer resources is an issue, let us know and we will be happy to provide these services at our Springfield campus.

For brochure requests and complete details on all of our professional development programs, call us at 1-800-660-9632 or visit our website, [www.wne.edu/pd](http://www.wne.edu/pd)

- Annual Tax Institute and Workshops
- Fundamentals of Engineering/Engineering-in-Training (FE/EIT) Review Course
- Law Enforcement Seminars
- Project Management Forum
- Regional Social Work Conference and Workshops

### **Annual Conferences and Certificate Programs**

#### ***Regional Social Work Conference (32 years)***

This conference is an all-day event comprised of 40 plus individual workshops. These workshops vary in topics ranging from AIDS and domestic abuse to professional burnout and new policies. The conference also provides a forum for information exchange on contemporary issues and networking opportunities for human service professionals throughout New England.

#### ***Tax Institute***

For more than 50 years, the Tax Institute has provided high quality written (and computer) materials, oral presentations from expert speakers on detailed tax structuring, and planning techniques and their practical applications. It addresses timely topics and updates based on changes or developments in the tax law with a focus on the planning opportunities and pitfalls which may result from those changes.

### **Professional Development Workshops and Trainings**

#### ***Fundamentals of Engineering/Engineering-in-Training (FE/EIT) Review Course***

This 10-session course reviews fundamental engineering subjects, mathematics, and basic sciences to prepare engineers for the General Fundamentals of Engineering Exam. University faculty review concepts and solve problems similar in type and complexity as those encountered on the exam. This course is offered in January in preparation for the spring exam.

***Project Management Forum***

In collaboration with the SNEC PMI Chapter, the Western Massachusetts Project Management Forum hosts monthly forum meetings on the Western New England University campus for project managers. Creative discussions and guest speakers provide a platform for all area project managers to network, and share ideas, strategies, and solutions to current challenges in the field of project management.

To participate in this forum, contact Joseph Cacciola via email at [Jcacciola@MassMutual.com](mailto:Jcacciola@MassMutual.com).

***Social Work Workshops***

Western New England University's Bachelor of Social Work program, Office of Professional Development, and Social Work Advisory Council sponsor professional development workshops on current issues in the human service field. These workshops have served the needs of human service professionals from Massachusetts and surrounding states by providing a minimum of five programs yearly for CEUs for social workers; licensed mental health workers, CADAC, Marriage and Family Therapists; and PDPs for educators.

For detailed information, visit our website, [www.wne.edu/pd](http://www.wne.edu/pd) or call 1-800-660-9632.

**LEGEND FOR NOTES IN SEQUENCE OF COURSES**

A & SR: College of Arts and Sciences Requirement

BUSR: College of Business Requirement

ER: College of Engineering Requirement

CR: Concentration Requirement

GUR: General University Requirement

MR: Major Requirement

## UNDERGRADUATE DEGREE PROGRAMS

### Notes

See Legend for Notes in Sequence of Courses (p. 31)

### College of Arts and Sciences

Dean Saeed Ghahramani

Associate Dean Ann Kizanis

Assistant Dean Josie Brown-Rose

Assistant Dean Karl Martini

### Programs of Study

The College of Arts and Sciences has three primary objectives:

1. To provide academic major and minor programs within the College as career preparation and as concentrations in the various fields of the liberal arts.
2. To provide the courses that satisfy General University requirements in keeping with the founding purpose of the College and consistent with the ongoing role of Arts and Sciences and the academic expertise of the faculty.
3. To provide required courses for its own majors and minors, foundation courses for majors in the Business and Engineering Colleges, and elective courses for the enrichment of students across the University.

In this way the College of Arts and Sciences fulfills its educational purpose in accordance with the mission statement of Western New England University. This Mission Statement calls for integrated professional and liberal education. Arts and Sciences contribute to that mission through providing major programs, General University courses, and service and elective offerings.

The College of Arts and Sciences offers courses and programs leading to a Bachelor of Arts degree with majors in economics, communication, English, Law and Society, philosophy, political science, history, creative writing, international studies, liberal studies, psychology, or sociology; a Bachelor of Science degree with majors in biology, chemistry, computer science, criminal justice, forensic biology, forensic chemistry, health sciences, information technology, mathematics, neuroscience, or psychology; and a Bachelor of Social Work degree. Majors in elementary and secondary education are approved by the Massachusetts Board of Education and lead to teacher certifications. Also offered is an Associate's Degree in Liberal Studies.

To graduate, students must complete at least 122 semester hours in academic courses. Students must complete the requirements of a major program, the General University requirements, and certain area requirements. The balance of the academic program is composed of electives, which are courses chosen entirely by the student, with guidance from an advisor.

Most students attempt to complete the General University requirements during their first two years in college. Such planning provides added flexibility during the junior and senior years, enabling students to concentrate on major programs or to participate in internships or off-campus programs such as the Washington Semester, or New England Center for Children Internship Program, or study abroad.

### Minors

The course work for a degree may include one or more of the minors offered by the University. A minor may not be completed in the same discipline as the major. Descriptions of the requirements for the minors are listed on p. 157. Students wishing to take a minor must complete a form in the Office of the Dean, College of Arts and Sciences, no later than the beginning of the final semester.

College of Arts and Sciences Department Chairs and Faculty

### Department Chairs and Faculty

#### *Department of Arts and Humanities Faculty*

Associate Professor: Anita Dancs, Chair

Professors: Emmett Barcalow, Burton Porter

Associate Professors: Hillary Bucs, Heather Salazar

Assistant Professors: Amelia Nagoski, Sandra Navarro

#### *Department of Communication Faculty*

Professor: Douglas Battema, Chair

Professors: Hsiu-Jung "Mindy" Chang, Jean-Marie Higiroy

Associate Professor: Andrea M. Davis

Assistant Professor: Jocelyn A. DeAngelis

Professional Educator: Brenda Garton

#### *Department of Computer Science and Information Technology Faculty*

Associate Professor: Herman Lee Jackson II, Chair

Professors: Heidi Ellis, Lisa Hansen

Assistant Professor: Brian O'Neill

Professional Educator: John Willemain

#### *Department of Economics Faculty*

Professor: Herbert Eskot, Chair

Professor: Arthur Schiller Casimir

Associate Professors: Anita Dancs, Ranganath Murthy, Karl Petrick

#### *Department of Education Faculty*

Professor: Deb Patterson, Chair

Associate Professor: Molly Munkatchy

Assistant Professor: Raymond Ostendorf

**Department of English Faculty**

Professor: Winthrop Rhodes, Chair

Professors: Janet Bowdan, Josie Brown-Rose, William Grohe, Brad Sullivan

Associate Professors: Pearl Abraham, Lisa Drnec-Kerr, Kelly Klingensmith, Edward Wesp, Jeffrey Yu

Assistant Professor:

Professional Educators: Linda J. Oleksak, Louise Pelletier, Stephanie Wardrop

**Department of History and Political Science Faculty**

Professor: Marc Dawson, Chair

Professors: John Anzalotti, John Seung-Ho Baick, William Mandel, Theodore South, Leonard T. Vercellotti, Donald Williams

Associate Professors: Meri Clark, Jonathan Beagle, Peter Fairman, Catherine Plum

Assistant Professor: Laura L. Janik

**Department of Mathematics Faculty**

Professor: David Mazur, Chair

Professors: Jennifer Beineke, Saeed Ghahramani, Lorna Hanes, Lisa Hansen, Enam Hoq, Ann Kizanis

Associate Professors: Thomas Hull, Caleb M. Shor

Assistant Professors: Marcel Carcea, Adam Fox, Seungly Oh

Professional Educators: Pam Omer, John Willemain

**Department of Neuroscience Faculty**

Professor: Sheralee Tershner, Chair

Associate Professor: Jacob Krans

Assistant Professor: Arie Mobley

**Department of Physical and Biological Science Faculty**

Professor: Alexander Wurm, Chair

Professors: Anne Poirot, David Savickas

Associate Professors: John Drawec, Daniel Hatten, Dawn E. Holmes, Anna Klimes, Keri A. Lee, Kathryn Lipson, William Macanka, Karl Martini, Suzanna C. Milheiro, Jessica Rocheleau, Burt Rosenman, Isaac Stayton

Assistant Professors: Sean McClintock, Liang Ren Niestemski, Emily Notch, Emily Garcia Saga, Nolan Samboy

Professional Educators: Joseph Gallant, Francis G. Gerberich, Melissa Lail-Trecker, Mary Rothermich, Karl Sternberg, Kathleen Wurm

**Department of Psychology Faculty**

Professor: Dennis Kolodziejcki, Chair

Professors: Jessica Carlson, Gregory Hanley, Denine Northrup, Dongxiao Qin, Rachel Thompson

Associate Professors: Amanda Karsten, Ava Kleinmann, Jason Seacat

Assistant Professor: Kevin L. Zabel

**Department of Social Work Faculty**

Professor: Jeff Schrenzel, Chair

Professional Educators: Kathleen A. Miller, Paula Nieman

**Department of Sociology and Criminal Justice Faculty**

Professor: John Claffey, Chair

Professors: Denise Kindschi Gosselin, Michaela Simpson

Associate Professor: Laura Hansen

Assistant Professors: William Force, Kathryn Kozey, Sarah Stein

College of Arts and Sciences Special Academic Opportunities

**Special Academic Opportunities****Honors Program****Global Scholars Program**

The Global Scholars program provides Western New England University students with the opportunity to distinguish themselves by developing an understanding of another region or nation outside of the United States through university coursework and international study experiences. While the structure of each Global Scholars program is determined and overseen by the College in which the student is enrolled, all Global Scholars programs include the following elements:

- An introductory experience or course
- A period or periods of international study abroad
- Completion of a sequence of courses in international issues, area studies, or foreign language
- An integrating or capstone experience or course

Each Global Scholars program includes activities that may be used to satisfy university-wide Learning Beyond the Classroom (LBC) requirements. In addition, all Global Scholars are encouraged to participate in other globally-focused opportunities on campus.

Additional details regarding specific Global Scholars requirements are provided in each College's catalogue section: College of Arts and Sciences and College of Business.

Western New England University offers Global Scholars programs in the College of Arts and Sciences Special Academic Opportunities and the College of Business Special Academic Opportunities.

**University Global Scholars—College of Arts and Sciences**

The College of Arts and Sciences encourages all students to understand regions and nations outside of the United States through University courses and international experiences. The Global Scholars program helps students prepare for and reflect upon their pre-departure, international, and re-entry processes to cultivate their intellectual and intercultural learning.

Global Scholars supports students in connecting their international and intercultural courses and experiences to their academic, professional, and personal endeavors. It is open to students from any major in the College of Arts and Sciences. Learning Beyond the Classroom opportunities are available. Students who satisfy all requirements will receive the Global Scholar designation on their University transcript and at Commencement.

**To earn the College of Arts and Sciences Global Scholar designation, a student must complete successfully:**

International and Intercultural Orientation and Reflection (INST 100, 2 credits, to be completed by the end of the sophomore year) aims to develop students' skills in learning about and reflecting on cultural differences in education and work abroad. It serves as a pre-orientation to international and intercultural education. This course is open to any University student.

Minimum six credits of study outside the United States that are completed in one or more international study experiences. This may be accomplished in many ways: through participation in the Freshman Semester in London, in one of the College's many study-abroad courses, in a semester or summer program arranged via the University's Study Abroad Office, or in a combination of courses or travel-study experiences during summer or winter breaks.

Exceptions to the international study experience may be granted for a student pursuing intensive language training (i.e. 15 credits of a foreign language may replace 3 credits of study abroad).

Minimum six credits of University or international courses on foreign languages, regions, or cultures, or on global issues relevant to a student's international and intercultural focus.

A capstone experience completed in the senior year (1-3 credits) that provides Global Scholars with active reflection on their international or intercultural experiences and how that learning connects to their University studies. The capstone will follow the international or intercultural experience and must be developed in consultation with the Coordinator of Global Scholars. This requirement may be aligned with the Honors Program and/or major program requirements in the College of Arts and Sciences.

Students must be in good academic standing to participate in study abroad and to graduate with Global Scholars recognition. Particular study abroad programs may require higher standards of admission.

Contact Dr. Meri Clark (meri.clark@wne.edu), the Coordinator of the University Global Scholars College of Arts and Sciences Program for more information.

## College of Arts and Sciences Requirements

Students in the College of Arts and Sciences are required to satisfy the General University Requirements (p. 28). All students majoring within the College of Arts and Sciences must also fulfill the following requirements:

1. Complete at least 122 credit hours of courses in order to graduate.  
Note: No more than 15 credit hours of ROTC courses may be counted within this 122;
2. Complete the requirements for a major;
3. Complete all 8 Perspectives of Understanding (p. 28);
4. Writing Intensive Requirement (WIC)  
Complete at least six additional credit hours in courses designated as "Writing Intensive," one at the 200-level and one at the 300-level. All Writing Intensive courses are approved by the Department of English; and
5. Complete at least 30 credit hours in advanced courses (numbered 300-400) that may include those in the major and other areas, or complete the requirements for a major and a minor.  
No ROTC courses may count as advanced courses.

Nonbusiness majors can apply no more than 25% of business coursework to their graduation requirement.

## Actuarial Science Major

### General Information

Actuaries are business professionals who quantify, model, and analyze risk in a business environment. Wherever risk or uncertainty is present, such as in the contexts of life, property or casualty insurance, health care, or in the financial management of pensions or annuities, actuaries are needed to understand and manage that risk. An actuary needs to have a solid grounding in the theory and applications of calculus, probability and statistics, mathematical finance including interest theory, and various mathematical modeling techniques.

In addition to their mathematical analysis and problem-solving abilities, actuaries need to have excellent oral and written communication skills as well as a basic understanding of economics, finance, and corporate structure and decision making. An ideal actuary has mastery of technical mathematical material, can apply it in its proper context, and can communicate it to an appropriate audience.

### Career Opportunities

The job of actuary is consistently rated very highly in terms of job satisfaction, salary, employment outlook, work environment, and growth opportunity. One can usually find it at or near the top of annual "best jobs" lists. Actuaries are in high demand and are most commonly employed in the insurance, financial services, and health care industries as well as in government agencies. The numerous such companies present in the Springfield-Hartford corridor means that actuarial jobs are relatively plentiful, and even more opportunities are possible in the greater Boston and New York areas. Graduates of Western New England have obtained positions at many of these companies.

### Program Objectives

The Actuarial Science major is housed within the Department of Mathematics and follows the educational recommendations of the two largest actuarial-related professional societies in the US: the Society of Actuaries (SOA) and the Casualty Actuary Society (CAS). A student who successfully completes the Actuarial Science major will:

1. Demonstrate knowledge of the foundational mathematical concepts needed for actuarial science.
2. Demonstrate the ability to communicate actuarial mathematics to an appropriate audience, in both written and oral form.
3. Demonstrate competence with software relevant to a career in actuarial science.
4. Demonstrate success in learning mathematical concepts independently.

The SOA and CAS credential professional actuaries through a widely recognized and respected process that involves exams, coursework, and work experience. The Actuarial Science major involves coursework that covers the majority of the syllabi for Exam P/1 (Probability), Exam FM/2 (Financial Mathematics), Exam MFE/3F (Models for Financial Economics), Exam MLC/LC (Models for Life Contingencies), and Exam ST (Stochastic Processes/Statistics). Although not a requirement, students are strongly encouraged to pass at least one if not both of Exams P/1 and FM/2 before graduation. In addition, a student completing the major will be in position to receive credit for all three of the validation by educational experience (VEE)

areas required of the SOA and CAS. See below for more information.

**Mathematics Faculty** (p. 33)

**Degree Requirements**

Required Mathematics and Computer Science courses (54 credit hours)

MATH 121	Introductory Probability and Statistics	3 cr.
MATH 133	Calculus I	4 cr.
MATH 134	Calculus II	4 cr.
MATH 235	Calculus III	3 cr.
MATH 236	Differential Equations	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 306	Linear Algebra	3 cr.
MATH 310	Theory of Interest	3 cr.
MATH 372	Probability	3 cr.
MATH 383	Mathematical Statistics	3 cr.
MATH 384	Applied Regression & Time Series	3 cr.
MATH 401	Actuarial Models I	3 cr.
MATH 402	Actuarial Models II	3 cr.
MATH 405	Applied Stochastic Processes	3 cr.
MATH 406	Mathematical Finance	3 cr.
CS 170	Technology in Mathematics	3 cr.
CS 171	Programming for Mathematics	4 cr.

**Subtotal: 54**

Other required courses (27 credits)

AC 201/HONB 203	Financial Reporting	3 cr.
EC 111	Principles of Microeconomics	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
ENGL 206	Writing for Business	3 cr.
FIN 214	Introduction to Finance	3 cr.
FIN 320	Intermediate Corporation Finance	3 cr.
FIN 417	Investments	3 cr.
ILP 317	Management Issues for Professionals	3 cr.
PH 211	Business Ethics	3 cr.

**Subtotal: 27**

**Other Recommended Courses**

A student who wishes to use their general electives to obtain additional coursework that supports a career in the actuarial sciences could take any of the following.

AC 202	Managerial Accounting	3 cr.
EC 386	Econometrics	3 cr.
FIN 418	Security Analysis	3 cr.
MATH 420	Mathematical Modeling	3 cr.
MATH 421	Real Analysis	3 cr.

**Subtotal: 15**

**Actuarial Exams and VEE Credits**

The following courses help prepare students for the corresponding SOA or CAS exams. It should be noted that preparing for an exam requires independent study beyond the coursework. For complete topics, consult the exam syllabi as published by the SOA or CAS.

SOA Exam	CAS Exam	Course(s)
Exam P	Exam 1	MATH 372
Exam FM	Exam 2	MATH 310
Exam MFE	Exam 3F	MATH 406
Exam MLC	Exam LC*	MATH 401 & MATH 402
	Exam ST	MATH 383 & MATH 405

\*Passing SOA Exam MLC allows a student to receive credit for CAS Exam LC, but passing CAS Exam LC alone does not allow a student to receive credit for SOA Exam MLC.

The validation by educational experience (VEE) requirement of the SOA and CAS can be obtained by taking the following courses, for which we anticipate VEE approval. Although VEE experiences can be completed independently of the exam process, a student needs to have passed at least two exams before applying for VEE credit.

VEE Topic	Courses
Economics	EC 111 & EC 112
Corporate Finance	FIN 320 & FIN 417
Applied Statistical Methods	MATH 383 & MATH 384

**Obtaining a Mathematical Sciences Minor**

A student obtaining an Actuarial Science major can complete the requirements for the Mathematical Sciences minor by taking one additional course: MATH 412, MATH 418, or MATH 421. In addition, a student wishing to pursue an Economics minor or a Business minor needs to take only three or four additional courses, respectively.

See the Mathematical Sciences Minor (p. 163) for the list of courses.

\*Either BIO 107-BIO 108 and BIO 117-BIO 118, or CHEM 105-CHEM 106, or PHYS 133-PHYS 134 must be taken to satisfy the Natural Science Perspective requirement. The Department recommends PHYS 133-PHYS 134.

\*\*In alternate years, MATH 401-MATH 402 should be taken in the junior year with MATH 383-MATH 384 and MATH 405-MATH 406 taken in the senior year.

Total Credit Hours: 122

## Actuarial Science Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year - Fall Semester

ENGL 132	English Composition I	3 cr.
MATH 133	Calculus I	4 cr.
LA 100	First Year Seminar	2 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
BIO 107	General Biology I	3 cr.
	And	
BIO 117	General Biology Laboratory I	1 cr.
	or	
CHEM 105	General Chemistry I	4 cr.
	or	
PHYS 133	Mechanics	4 cr.
		<b>Subtotal: 17</b>

#### Freshman Year - Spring Semester

CS 170	Technology in Mathematics	3 cr.
ENGL 133	English Composition II	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
MATH 134	Calculus II	4 cr.
BIO 108	General Biology II	3 cr.
	And	
BIO 118	General Biology Laboratory II	1 cr.
	or	
CHEM 106	General Chemistry II	4 cr.
	or	
PHYS 134	Electricity and Magnetism	4 cr.
		<b>Subtotal: 17</b>

#### Sophomore Year - Fall Semester

MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.

MATH 310	Theory of Interest	3 cr.
AC 201/HONB 203	Financial Reporting	3 cr.
EC 111	Principles of Microeconomics	3 cr.
		<b>Subtotal: 15</b>

#### Sophomore Year - Spring Semester

MATH 236	Differential Equations	3 cr.
MATH 372	Probability	3 cr.
CS 171	Programming for Mathematics	4 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
		<b>Subtotal: 16</b>

#### Junior Year - Fall Semester

MATH 306	Linear Algebra	3 cr.
MATH 383	Mathematical Statistics	3 cr.
MATH 405	Applied Stochastic Processes	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
FIN 320	Intermediate Corporation Finance	3 cr.
PEHR XXX	Lifetime Activities	1 cr.
		<b>Subtotal: 16</b>

#### Junior Year - Spring Semester

MATH 384	Applied Regression & Time Series	3 cr.
MATH 406	Mathematical Finance	3 cr.
ENGL 206	Writing for Business	3 cr.
GEN XXX	General Elective	3 cr.
ILP 317	Management Issues for Professionals	3 cr.
		<b>Subtotal: 15</b>

#### Senior Year - Fall Semester

MATH 401	Actuarial Models I	3 cr.
FIN 417	Investments	3 cr.
PH 211	Business Ethics	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.
		<b>Subtotal: 13</b>

#### Senior Year - Spring Semester

MATH 402	Actuarial Models II	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
GEN XXX	General Elective	3 cr.
WIC 3XX	Writing Intensive Course	3 cr.
		<b>Subtotal: 12</b>

Total Credit Hours: 122

## American Studies Major

### General Information

American Studies majors take a broad, inter-disciplinary approach to the meaning and nature of culture in the United States including the context of European colonialism – an inquiry that explores the idea of America as a contested site of meaning. Literature is the core of the program, but majors position their literary study in a comparative analysis of visual media and history to supplement their understanding of the relationship between cultural expressions and their context in social, political and economic change.

### Career Opportunities

Combining a specialization in American culture with emphasis on critical reading, writing and thinking throughout the course of study, American Studies majors have many opportunities for graduate study and employment. They graduate prepared for the fields of law and politics, technical writing, editing, journalism and teaching. Students competing for positions specifically focused on American literature or culture will be able to present themselves as specialists in that field. The cultural and historical context of the American Studies program serves majors in business fields reliant on the interpretation of cultural trends and meaning such as marketing and media research, publishing and public relations.

### English Faculty (p. 33)

Professors: Josie Brown-Rose, Winthrop Rhodes

Associate Professors: Lisa Drnec-Kerr, Kelly Klingensmith, Edward Wesp

Professional Educator: Stephanie Wardrop

### Program Objectives

- To offer a broad, inter-disciplinary approach to the culture of the United States.
- To provide in-depth exposure to the forms and development of American, including African American, literature situated in the broad Anglophone tradition and history of colonization.
- To analyze film and visual media as a part of the larger American cultural discourse and sharpen students' awareness of the techniques and traditions particular to visual media.
- To supplement students' understanding of literary and visual media with historical context.
- To develop students' ability to read, analyze and interpret a variety of cultural texts.
- To develop students' ability to produce clear, nuanced and rhetorically sophisticated academic writing.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

Four additional courses, of which one must treat a major author or authors, and another must treat a historically under-represented literature.

Total Credit Hours: 122

### American Studies Major-Course Requirements

The requirements call for 36 credits in the Department of English<sup>1</sup> and 6 credits from the courses taken in the Department of History.

<sup>1</sup> Optionally, 3 credits from one of two selected courses in the Department of Communications can be counted toward the 36 credit requirement.

ENGL 2xx/3xx Studies in Transatlantic Culture can be filled by ENGL 231, ENGL 232, ENGL 327, ENGL 328, ENGL 329 or ENGL 341 or by future courses relevant to Transatlantic study.

### Degree Requirements

Each of the following courses in American Literature and Literary Studies:

ENGL 223	African American Literature I	3 cr.
ENGL 224	African American Literature II	3 cr.
ENGL 251	American Literature I	3 cr.
ENGL 252	American Literature II	3 cr.
ENGL 302	Approaches to the Study of Literature	3 cr.
ENGL 3xx	Topics in American Studies (Variable Topics)	3 cr.
ENGL 2xx/3xx	Studies in Transatlantic Culture - ENGL 231, 232, 327, 328 or 341	3 cr.
ENGL 336	Ethnic American Literature	3 cr.
ENGL 338/411	Major Authors	3 cr.
	or	
ENGL 345	Major African American Writers	3 cr.
ENGL 410	English Seminar	3 cr.

**Subtotal: 33**

Any two of the following courses in Film and Media Studies or Communications, one of which must be FILM xxx:

FILM 201	Studies in Mainstream Film Genres	3 cr.
FILM 210	Mass Media in Film	3 cr.
FILM 212	Women and Film	3 cr.
FILM 290	Special Topics in Film	1-3 cr.
FILM 340	Director's Signature	3 cr.
FILM 390	Special Topics in Film	1-3 cr.
COMM 324	Media Industries, Government, and Society	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.

**Subtotal: 6**

Any two of the following courses from the Department of History:

HIST 25x	Courses in American History	3 cr.
HIST 35x	Courses in American History	3 cr.

**Subtotal: 6**

Subtotal: 45

**Degree Requirements****Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
GEN XXX	General Elective	3 cr.
CS 13X	Computer Competence	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15****Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 16****Sophomore Year - Fall Semester**

ENGL XXX	Two literature survey courses from among ENGL 231, 232, 251 or 252	6 cr.
SBP XXX	Soc Science Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.

**Subtotal: 15****Sophomore Year - Spring Semester**

ENGL XXX	Two literature survey courses from among ENGL 231, 232, 251 or 252	6 cr.
ENGL 302	Approaches to the Study of Literature	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.

**Subtotal: 15****Junior Year - Fall Semester**

ENGL 336	Ethnic American Literature	3 cr.
HIST 25x	Courses in American History	3 cr.
FILM 2xx	One from among FILM 201, 210, 212 or 290	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
CUL XXX	Cultural Perspective	3 cr.

**Subtotal: 15****Junior Year - Spring Semester**

ENGL 2xx/3xx	Studies in Transatlantic Culture - ENGL 231, 232, 327, 328 or 341	3 cr.
ENGL 3xx	Topics in American Studies (Variable Topics)	3 cr.
FILM/COMM 3xx	One from among FILM 340, 390 or COMM 324, 326	3 cr.
HIST 35x	Courses in American History	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

ENGL 338/411	Major Authors	3 cr.
	or	
ENGL 345	Major African American Writers	3 cr.
	or	
ENGL 411/338	Major Authors	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

ENGL 410	English Seminar	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Biology Major****General Information**

The goal of the Biology major is to provide students with the information and skills necessary to function in jobs or to obtain the undergraduate background necessary for more advanced training and education at the graduate level. In either case, the purpose is employment in a biologically oriented field or the professions.

**Career Opportunities**

Biology graduates are employed as laboratory technicians, product analysts, quality control technicians, and forensic scientists. Others are in research, teaching, or have gone on to graduate or medical schools.

**Physical and Biological Faculty** (p. 33)

**Program Objectives:**

1. To demonstrate knowledge of basic structure and functioning of cells.
2. To understand the basic features of the synthetic theory of evolution.
3. To understand basic ecological principles.
4. To understand the principles and mathematical analysis of Mendelian and non-Mendelian inheritance.
5. To understand the structure and function of nucleic acids and molecular controls.
6. To understand the structures and physiology of animals.
7. To understand the structure and physiology of plants.
8. To achieve additional understanding in population biology, organismic biology, or cellular and molecular biology.
9. To develop quantitative problem solving skills and data analysis.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

**Degree Requirements**

Required biology courses (34 credit hours)

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
BIO 201	Plant Biology	4 cr.
BIO 213	Ecology	3 cr.
BIO 310	Cell Biology	4 cr.
BIO 306	Genetics	4 cr.
BIO 455	Evolution	3 cr.
BIO 2xx-4xx	Eight additional semester hours of 2xx-4xx BIO courses	8 cr.

**Subtotal: 34**

Required chemistry courses (16 credit hours)

CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.

**Subtotal: 16**

Twelve to 14 additional credit hours in math, physics, and statistics courses

MATH 109	Pre-Calculus Mathematics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
	And	
PHYS 124	Physics of the Life Sciences 2	4 cr.
	or	
PHYS 101	Elements of Physics	3 cr.
	And	
PHYS 15X	PHYS 15x Elective	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.

**Subtotal: 12-14**

Subtotal: 62-64

Total Credit Hours: 62-64

**Biology Suggested Sequence of Courses**

Notes: The suggested sequence of courses in years two, three, and four is an example only. Some offerings for these years will alternate and the exact sequence will require consultation with the faculty and deans.

**Degree Requirements**

**Freshman Year - Fall Semester**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
MATH 109	Pre-Calculus Mathematics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
LA 100	First Year Seminar	2 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Sophomore Year - Fall Semester**

BIO 213	Ecology	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
WIC 2XX	Writing Intensive Course	3 cr.
HIST XXX	History	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 14****Sophomore Year - Spring Semester**

BIO 201	Plant Biology	4 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CS XXX	Computer Competence Requirement	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 14****Junior Year - Fall Semester**

BIO 2XX/4XX	BIO Elective	4 cr.
CUL 2XX	Cultural Studies	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
PHYS 101	Elements of Physics or	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.

**Subtotal: 16-17****Junior Year - Spring Semester**

PHYS 15X	PHYS 15x Elective or	3 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.
ART XXX	Aesthetic Perspective	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
BIO 310	Cell Biology	4 cr.

**Subtotal: 16-17****Senior Year - Fall Semester**

BIO 306	Genetics	4 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
SBP XXX	Soc Science Perspective	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

BIO 455	Evolution	3 cr.
BIO 2XX/4XX	BIO Elective	4 cr.
GEN XXX	General Electives	4 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.

**Subtotal: 15****Pre-medical Students:**

Biology majors intending to apply to medical school should contact the premed advisor of the department for additional information concerning sequence of courses.

Total Credit Hours: 122-124

**Chemistry Major**

The Chemistry curriculum is designed to provide a sound theoretical background in the principles of chemistry complemented by hands-on laboratory experiences. Students have the opportunity to acquire the chemical knowledge and laboratory skills enabling them to perform synthesis as well as characterize organic and inorganic compounds utilizing chemical, spectrophotometric, chromatographic, and advanced instrumental methods of analysis.

**Career Opportunities**

A baccalaureate degree in chemistry provides graduates with diverse career opportunities and also prepares them for advanced studies in chemistry and related fields. Our graduates are employed as chemical research associates in industrial, governmental, clinical, and environmental settings. Others pursue a career teaching chemistry or in chemical sales. Many of our graduates pursue advanced degrees in chemistry, biochemistry, medical sciences, and other related disciplines.

**Physical and Biological Faculty** (p. 33)**Chemistry Major Objectives**

Upon completing this program, a Chemistry major will be able to:

1. Perform accurate stoichiometric and chemical equilibrium calculations.
2. Predict and explain the reactivity of an organic or inorganic compound from a knowledge of its structure.
3. Assess the thermodynamic and kinetic stability of a chemical system.
4. Propose a reasonable mechanism for an organic or inorganic reaction.
5. Apply basic quantum mechanical concepts to the study of chemical systems.
6. Synthesize and characterize inorganic and organic compounds.
7. Design and perform a qualitative and quantitative analysis of a sample of matter, using both wet and instrumental methods.
8. Plan and execute experiments through the proper use of library resources.

9. Analyze data statistically and assess reliability of results.  
 10. Communicate effectively through oral and written reports.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

### Degree Requirements

Required chemistry courses (40 credit hours)

CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
CHEM 312	Instrumental Analysis	3 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 317	Physical Chemistry I	3 cr.
CHEM 318	Physical Chemistry II	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
CHEM 328	Physical Chemistry Laboratory II	1 cr.
CHEM 421	Inorganic Chemistry	3 cr.
CHEM 431	Inorganic Chemistry Laboratory	1 cr.

**Subtotal: 40**

Mathematics and physics courses (19 credit hours)

MATH 133	Calculus I	4 cr.
MATH 134	Calculus II	4 cr.
MATH 235	Calculus III	3 cr.
PHYS 133	Mechanics	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 19**

Subtotal: 59

The 2.0 required grade point average in the major is based upon all CHEM courses pursued as a part of the student's degree program.

Total Credit Hours: 59

### Chemistry Suggested Sequence of Courses

Notes: The suggested sequence of courses in years three and four is an example only. Some offerings for these years will alternate and the exact sequence will require consultation with the faculty and deans.

### Degree Requirements

#### Freshman Year- Fall Semester

CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 133	Calculus I	4 cr.
PHYS 133	Mechanics	4 cr.

**Subtotal: 17**

#### Freshman Year - Spring Semester

CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 16**

#### Sophomore Year - Fall Semester

CHEM 209	Organic Chemistry I	3 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
MATH 235	Calculus III	3 cr.
CS XXX	Computer Competence Requirement	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 17**

#### Sophomore Year - Spring Semester

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 312	Instrumental Analysis	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
WIC 2XX	Writing Intensive Course	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

#### Junior Year - Fall Semester

CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
CUL 2XX	Cultural Studies	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 13**

**Junior Year - Spring Semester**

CHEM 318	Physical Chemistry II	3 cr.
CHEM 328	Physical Chemistry Laboratory II	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 14****Senior Year - Fall Semester**

GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.

**Subtotal: 15****Senior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
CHEM 421	Inorganic Chemistry	3 cr.
CHEM 431	Inorganic Chemistry Laboratory	1 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	2 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Communication Major****General Information**

Students in the communication major are exposed to the fundamental tenets of several aspects of the field, including interpersonal communication, oral communication, verbal and nonverbal communication, organizational communication, health communication, intercultural communication, and electronically mediated communication. They also learn about different approaches to research and practice within each field. Students also choose one of five concentrations which will allow them to focus their studies in an area best reflecting their personal interests and professional needs: 1) Media Theory and Production, which emphasizes the production, reception, and interpretation of messages via electronic media as well as the role of media institutions in society; 2) Corporate Communication, which emphasizes the analysis of verbal and nonverbal communication in interpersonal, business, and professional contexts as well as the development of skills to increase efficiency in conveying or interpreting messages in those contexts; 3) Journalism, which emphasizes the creation and interpretation of messages in a variety of news media and the development of journalistic ethics and reporting skills; 4) Public Relations, which emphasizes the construction of messages for public consumption across media and the development of skills to enhance the efficacy of conveying a

message clearly and accurately via mass media institutions; or 5) Health Communication, which emphasizes the collection and dissemination of information about health issues on public, institutional, and interpersonal scales. Students may only major in one concentration; double majoring in two different concentration is prohibited.

**Career Opportunities**

The benefits of a communication major are manifold. Some graduates of the communication major continue their education in graduate school or law school. Others work for television or radio broadcast stations, newspapers, public service organizations, hospitals, insurance companies, public relations firms, political campaigns, and other businesses. Our unique partnership with WAMC Northeast Public Radio enables our best students to write, produce, and broadcast news reports at a national level—an excellent springboard for careers in journalism and broadcasting. Students also have an opportunity to produce professional promotional videos for nonprofit organizations through the University's Institute for Media and Nonprofit Communication. Regardless of the concentration they choose, our graduates tell us that the communication curriculum has helped them not only to develop their writing and speaking skills, but also to handle specialized assignments such as creating questionnaires and conducting interviews that provide useful data for their organizations. In short, they know how to obtain, process, and disseminate information.

**Communication Faculty (p. 32)****Program Objectives****Intellectual Range**

1. To enlarge and deepen students' understanding of human nature as reflected in and affected by various forms of communication.
2. To enlarge and deepen students' understanding and appreciation of the role of communication in human society and individual life.
3. To deepen students' understanding of the various forms and media of communication.
4. To enhance students' understanding of the conditions for both success and failure in communication, as well as abuses of power through communication.
5. To encourage critical reflection on the information and values conveyed by electronic media, as well as their role in society.
6. To encourage critical reflection on the ethical issues that arise in the field of communication.

**Important Communication Skills**

The ability to convey information and to persuade others effectively and efficiently—whether in written, oral, or electronically mediated communication—is of great value in personal, family, professional, and political life. The communication curriculum is designed to achieve the following:

1. To improve students' ability to read, comprehend, and analyze written communication.
2. To improve students' ability to listen to, comprehend, and analyze oral communication.
3. To develop students' ability to design research strategies and to conduct research effectively.
4. To improve students' ability to write clear, grammatically correct, and rhetorically powerful prose.

5. To improve students' ability to communicate nonverbally and to understand the nonverbal communication of others in a variety of situations.
6. To enhance students' abilities to consume, use, and create electronic media technology and products.

**Theoretical and Practical Communication Content**

1. To increase students' knowledge of various theories of communication.
2. To heighten students' awareness of the power of communication.
3. To develop students' capacities as powerful communicators in global society.
4. To enable students to be engaged citizens in an increasingly mediated culture.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

The Communication Major requires 39 credit hours in communication and/or journalism courses.

**Degree Requirements**

All communication majors are required to take the following courses (24 credit hours), in addition to the courses required by their respective concentrations:

COMM 100	Principles of Communication	3 cr.
COMM 102	Introduction to Public Speaking	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 206	Introduction to Communication Research	3 cr.
COMM 300	Communication Theory	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
EC/POSC xxx	Social Science Course	3 cr.
	And	
COMM 348	Intercultural Communication	3 cr.
	or	
COMM 356	Global Communication	3 cr.
		<b>Subtotal: 24</b>

Communication majors concentrating in media theory and production are also required to take the following courses (24 credit hours):

Plus one COMM course at the 3xx/4xx level

COMM 241	Video Production I: Introduction to Digital Editing	3 cr.
COMM 250	Video Production II	3 cr.
COMM 251	Video Communication	3 cr.
COMM 324	Media Industries, Government, and Society	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.

COMM 352	Multimedia Communication	3 cr.
COMM 490	Seminar in Media Theory and Journalism	3 cr.

**Subtotal: 24**

Communication majors concentrating in journalism are also required to take the following courses (24 credit hours):

Plus one COMM or JRNL course at the 3xx/4xx level

JRNL 101	Introduction to Journalism	3 cr.
JRNL 205	Journalism Ethics	3 cr.
JRNL 250	Intermediate Journalism	3 cr.
JRNL 370/COMM 371	Advanced Radio Reporting	3 cr.
COMM 285	Introduction to Public Relations	3 cr.
COMM 344	Event Planning	3 cr.
COMM 490	Seminar in Media Theory and Journalism	3 cr.

**Subtotal: 24**

Communication majors concentrating in corporate communication are also required to take the following courses (24 credit hours):

Plus one COMM course at the 2xx/3xx/4xx level

COMM 280	Organizational Communication	3 cr.
COMM 315	Language, Power and Communication	3 cr.
COMM 320	Small Group Communication	3 cr.
COMM 321	Interpersonal Communication	3 cr.
COMM 340	Business Communication	3 cr.
COMM 348	Intercultural Communication	3 cr.
COMM 491	Seminar in Public and Corporate Communication	3 cr.

**Subtotal: 24**

Communication majors concentrating in public relations are also required to take the following courses (24 credit hours):

Plus one COMM course at the 3xx/4xx level

COMM 280	Organizational Communication	3 cr.
COMM 285	Introduction to Public Relations	3 cr.
COMM 320	Small Group Communication	3 cr.
COMM 328	Health Communication Campaigns	3 cr.
COMM 340	Business Communication	3 cr.
COMM 344	Event Planning	3 cr.
COMM 491	Seminar in Public and Corporate Communication	3 cr.

**Subtotal: 24**

Communication majors concentrating in health communication are also required to take the following courses (24 credit hours):

Plus one COMM course at the 3xx/4xx level

COMM 283	Health Communication	3 cr.
COMM 285	Introduction to Public Relations	3 cr.
COMM 320	Small Group Communication	3 cr.
COMM 321	Interpersonal Communication	3 cr.
COMM 328	Health Communication Campaigns	3 cr.
COMM 344	Event Planning	3 cr.

**Subtotal: 24**

Subtotal: 120

Total Credit Hours: 120

### Communication Concentration in Media Theory and Production

#### Degree Requirements

##### Freshman Year - Fall Semester

COMM 100	Principles of Communication	3 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

##### Freshman Year - Spring Semester

COMM 102	Introduction to Public Speaking	3 cr.
ENGL 133	English Composition II	3 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

##### Sophomore Year - Fall Semester

EC/POSC xxx	Social Science Course	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 206	Introduction to Communication Research	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
COMM 241	Video Production I: Introduction to Digital Editing	3 cr.

**Subtotal: 15**

##### Sophomore Year - Spring Semester

ART XXX	Aesthetic Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
COMM 250	Video Production II	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
PSY/SO XXX	Social Behavioral Perspective	3 cr.

**Subtotal: 15**

##### Junior Year - Fall Semester

COMM 251	Video Communication	3 cr.
COMM 300	Communication Theory	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
	And	
COMM 348	Intercultural Communication	3 cr.
	or	
COMM 356	Global Communication	3 cr.

**Subtotal: 15**

##### Junior Year - Spring Semester

COMM 324	Media Industries, Government, and Society	3 cr.
COMM 352	Multimedia Communication	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

##### Senior Year - Fall Semester

COMM 490	Seminar in Media Theory and Journalism	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.

**Subtotal: 16**

##### Senior Year - Spring Semester

COMM 3XX	COMM Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Communication Concentration in Corporate Communication**

**Degree Requirements**

**Freshman Year- Fall Semester**

COMM 100	Principles of Communication	3 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

COMM 102	Introduction to Public Speaking	3 cr.
ENGL 133	English Composition II	3 cr.
PSY/SO XXX	Social Behavioral Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

EC/POSC xxx	Social Science Course	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 206	Introduction to Communication Research	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 16**

**Sophomore Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
COMM 280	Organizational Communication	3 cr.
GEN XXX	General Elective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

COMM 300	Communication Theory	3 cr.
COMM 315	Language, Power and Communication	3 cr.
COMM 321	Interpersonal Communication	3 cr.
COMM 340	Business Communication	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

COMM 320	Small Group Communication	3 cr.
COMM 348	Intercultural Communication	3 cr.
COMM 2XX	COMM Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

COMM 356	Global Communication	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

COMM 491	Seminar in Public and Corporate Communication	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Communication Concentration in Journalism**

**Degree Requirements**

**Freshman Year- Fall Semester**

COMM 100	Principles of Communication	3 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

COMM 102	Introduction to Public Speaking	3 cr.
ENGL 133	English Composition II	3 cr.
HIST XXX	Historical Perspective	3 cr.
JRNL 101	Introduction to Journalism	3 cr.
MATH 120	Intro Stats for the Arts & Sci	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

COMM 205	Mass Communication	3 cr.
COMM 206	Intro to Communication Research	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
JRNL 205	Journalism Ethics	3 cr.
JRNL 250	Intermediate Journalism	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
PH 218	Contemporary Moral Problems	3 cr.
PSY/SO XXX	Social Behavioral Perspective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

EC/POSC xxx	Social Science Course	3 cr.
COMM 300	Communication Theory	3 cr.
GEN XXX	General Electives	4 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
	And	
COMM 348	Intercultural Communication	3 cr.
	or	
COMM 356	Global Communication	3 cr.
		<b>Subtotal: 16</b>

**Junior Year - Spring Semester**

COMM 285	Introduction to Public Relations	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Prof Persp.	3 cr.
JRNL 370 /COMM 371	Advanced Radio Reporting	3 cr.
	And	
COMM 3XX	COMM Elective	3 cr.
	or	
JRNL 3XX	JRNL Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

COMM 490	Seminar in Media Theory and Journalism	3 cr.
EC/POSC xxx	Social Science Course	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
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**Subtotal: 15****Senior Year - Spring Semester**

COMM 344	Event Planning	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Communication Concentration in Public Relations****Degree Requirements****Freshman Year- Fall Semester**

COMM 100	Principles of Communication	3 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15****Freshman Year - Spring Semester**

COMM 102	Introduction to Public Speaking	3 cr.
ENGL 133	English Composition II	3 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16****Sophomore Year - Fall Semester**

COMM 205	Mass Communication	3 cr.
COMM 206	Introduction to Communication Research	3 cr.
COMM 280	Organizational Communication	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
EC/POSC xxx	Social Science Course	3 cr.

**Subtotal: 15****Sophomore Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.

COMM 285	Introduction to Public Relations	3 cr.
GEN XXX	General Elective	3 cr.
PSY/SO XXX	Social Behavioral Perspective	3 cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

COMM 300	Communication Theory	3 cr.
COMM 321	Interpersonal Communication	3 cr.
COMM 328	Health Communication Campaigns	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.

And

COMM 348	Intercultural Communication	3 cr.
	or	
COMM 356	Global Communication	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

COMM 320	Small Group Communication	3 cr.
COMM 344	Event Planning	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

COMM 2XX	COMM Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

COMM 491	Seminar in Public and Corporate Communication	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 121

**Communication Concentration in Health Communications**

**Degree Requirements**

**Freshman Year- Fall Semester**

COMM 100	Principles of Communication	3 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

COMM 102	Introduction to Public Speaking	3 cr.
ENGL 133	English Composition II	3 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

PSY/SO XXX	Social Behavioral Perspective	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 206	Introduction to Communication Research	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
EC/POSC xxx	Social Science Course	3 cr.

**Subtotal: 16**

**Sophomore Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
COMM 285	Introduction to Public Relations	3 cr.
COMM 324	Media Industries, Government, and Society	3 cr.
COMM 280	Organizational Communication	3 cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

COMM 300	Communication Theory	3 cr.
COMM 3XX	COMM Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
GEN XXX	General Elective	3 cr.
	And	

COMM 348	Intercultural Communication	3 cr.
	or	
COMM 356	Global Communication	3 cr.
<b>Subtotal: 15</b>		

**Junior Year - Spring Semester**

COMM 340	Business Communication	3 cr.
COMM 320	Small Group Communication	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
<b>Subtotal: 15</b>		

**Senior Year - Fall Semester**

COMM 3XX	COMM Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
<b>Subtotal: 15</b>		

**Senior Year - Spring Semester**

COMM 491	Seminar in Public and Corporate Communication	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
<b>Subtotal: 15</b>		

Total Credit Hours: 122

**Computer Science Major****General Information**

The Computer Science major, which leads to a Bachelor of Science degree, is a versatile major that prepares professionals for careers that may require designing and developing software, finding effective solutions to computing problems, or using computers in innovative ways. The program is interdisciplinary in nature and involves coursework in computer science, computer engineering, and mathematics. The program provides a strong background in programming and software development including programming in Python, Java, C/C++, and more. The curriculum concentrates on the scientific, mathematical, and theoretical aspects of the design of computer systems while also developing communication skills through a strong liberal arts curriculum. The program prepares students to work as a software engineer, handling the design and development of user-oriented computer applications and systems. The substantial foundation in mathematics and computer hardware in this program offers students uniqueness and strength in today's job market. There is sufficient flexibility in the curriculum to allow

students to pursue additional coursework in software and/or hardware development, mathematics, business, information processing, computer forensics, and information technology. The program has been structured to follow the current recommendations of the Computer Science Curriculum Committee of the Association for Computing Machinery.

**Opportunities**

Graduates of this program develop the creativity and patterns of thought required of computer scientists and are prepared to go on to advanced study or to enter various professional fields. Graduates are well equipped with the analytic training and the knowledge of software and hardware to enter careers in software design, software development, software management, systems programming, systems analysis, technical and software support, and computer consulting. Organizations in business, industry, and the private sector are eager for candidates with the knowledge and skills that the graduates of this program possess.

**Computer Science and Information Technology Faculty** (p. 32)

**Program Objectives****Educational Objectives**

The Computer Science program will prepare students to be professionals capable of applying principles to practice, able to undertake lifelong learning, and aware of social, ethical, and environmental issues associated with their professional activities. The expected accomplishments of our graduates during the first several years following graduation from the program are to:

1. Successfully apply principles and practices of computing to develop and maintain software systems that meet customer need.
2. Function ethically and responsibly as a full participant in the computing discipline.
3. Remain current in the fast-changing world of technology today by pursuing lifelong learning.
4. Operate successfully as part of a team.
5. Apply knowledge and skills to the benefit of society.

**Program Outcomes**

Upon completion of the program, the student will have the following abilities:

- Communication – Ability to communicate ideas and concepts in written and oral forms clearly and in an organized manner.
- Mathematical Foundations - Ability to apply knowledge of computing and mathematical concepts and theory to develop and analyze computing systems.
- Teamwork – Ability to work in teams.
- Design – Ability to apply system design process and notation in order to design systems.
- Critical Thinking – Ability to reason logically and evaluate and analyze a computer-based system, process, component or program to meet desired needs.
- Ethics – Ability to identify the role computers play in society and identify and analyze ethical impacts of professional behavior and actions.
- Information Literacy – Ability to identify and utilize appropriate information sources in order to understand and/or solve problems.

**General University and College Requirements**

See General University Requirements and College of Arts and Sciences Requirements

**Degree Requirements**

Required computer science and engineering courses (45 credit hours)

CS 101/IT 101	Introduction to Computing	4 cr.
CS 102/IT 102	Introduction to Programming	4 cr.
CS 200/IT 200	Data Structures	4 cr.
CS 210	Software Design	4 cr.
CS 220	Software Development	4 cr.
CS 351	Programming Paradigms	3 cr.
CS 364	Design of Database Management Systems	3 cr.
CS 366	Design and Analysis of Algorithms	3 cr.
CS 413	Parallel Computing	3 cr.
CS 490	Software Engineering	3 cr.
CS 492	Computer Science Capstone	3 cr.
CPE 310	Microprocessors I	3 cr.
CPE 420	Computer Architecture	3 cr.
		<b>Subtotal: 44</b>

Required mathematics courses (12 credit hours)

MATH 150	Applied Discrete Mathematics	3 cr.
MATH 251	Advanced Discrete Mathematics	3 cr.
MATH 245	Topics in Linear Algebra and Calculus	3 cr.
MATH 363	Theory of Computation	3 cr.
		<b>Subtotal: 12</b>

Science courses (6 credit hours)

**Subtotal: 6**

Three additional computer science courses numbered 300 or above, or any of the following IT courses: IT 320, IT 350, and IT 450.

Technical Elective (six credit hours).

**Subtotal: 6**

Subtotal: 68

The 2.0 required grade point average in the major is based on all computer science, mathematics, computer engineering, information technology and business information systems courses pursued as a part of the student's degree program.

Total Credit Hours: 68

**Computer Science Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year- Fall Semester**

CS 101/IT 101	Introduction to Computing	4 cr.
GEN XXX	General Elective	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

CS 102/IT 102	Introduction to Programming	4 cr.
MATH 150	Applied Discrete Mathematics	3 cr.
ENGL 133	English Composition II	3 cr.
SBP XXX	Social/Behavioral Science Requirement	3 cr.
GEN XXX	General Elective	2 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

CS 200/IT 200	Data Structures	4 cr.
CS 210	Software Design	4 cr.
MATH 251	Advanced Discrete Mathematics	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Spring Semester**

CS 220	Software Development	4 cr.
GEN XXX	General Elective	3 cr.
MATH 245	Topics in Linear Algebra and Calculus	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3-4 cr.
ART XXX	Aesthetic Perspective	3 cr.
		<b>Subtotal: 16-17</b>

**Junior Year - Fall Semester**

CS 351	Programming Paradigms	3 cr.
CS 364	Design of Database Management Systems	3 cr.
LAB XXX	Laboratory Science Requirement	3-4 cr.
CPE 310	Microprocessors I	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15-16</b>

**Junior Year - Spring Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
CS 413	Parallel Computing	3 cr.
CPE 420	Computer Architecture	3 cr.
GEN XXX	General Elective	3 cr.
MATH 363	Theory of Computation	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

CS/IT 3XX/4XX	CS Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
CS 490	Software Engineering	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.

**Subtotal: 12****Senior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.
PH 211	Business Ethics	3 cr.
CS 366	Design and Analysis of Algorithms	3 cr.
CS 492	Computer Science Capstone	3 cr.

**Subtotal: 13**

Total Credit Hours: 120-122

**Creative Writing Major****General Information**

The Creative Writing major is intended for students who wish to combine the study of creative writing with the study of literature. Students will gain training in the art of writing within the context of aesthetics, the literary tradition, and a broad liberal arts education. The major offers students a rigorous “apprenticeship” in creative writing, developing students’ understanding of literary forms and tropes, and providing the appropriate background in literary and intellectual history.

**Career Opportunities**

The Creative Writing major will provide an excellent foundation from which students can continue to grow as writers. Because the combination of writing and literature will deal with everything from form and structure to editing to rewriting to critical thinking, Creative Writing graduates will be well suited for careers in all fields of writing, publishing, editing, advertising, technical writing, public relations, as well as graduate study.

**English Faculty (p. 33)**

Professor: Janet Bowdan

Associate Professors: Pearl Abraham, Lisa Drnec-Kerr

Professional Educator: Stephanie Wardrop

**Program Objectives**

1. To allow students to see and appreciate their own participation in a great tradition and learn the difference between imitation and innovation by studying the works of great writers and literary techniques so many have used.
2. To increase the student’s ability to read and understand a variety of literary works and to improve the students’ ability to write clear, grammatical, rhetorically effective prose and poetry.
3. To develop the ability to recognize literary techniques in others’ works and to utilize these techniques effectively in their own work.
4. To develop an independent and recognizable artistic “voice” and an increased imaginative capacity.
5. To gain a familiarity with the aspects of the publishing industry most relevant to their work and an experience with the process of submitting works of publishable quality.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

## Courses

ENGL 2XX	Introduction to Creative Writing	3 cr.
ENGL 351	Fiction Workshop	3 cr.
ENGL 352	Poetry Workshop	3 cr.
ENGL 354	Creative Non-Fiction Workshop	3 cr.
ENGL 231	British Literature I	3 cr.
ENGL 232	British Literature II	3 cr.
ENGL 316	Shakespeare: The Comedies and Histories	3 cr.
ENGL 3XX/4XX	English Elective	3 cr.
ENGL 3XX/4XX	English Elective	3 cr.
ENGL 480	Internship in English	1-3 cr.
ENGL 410	English Seminar	3 cr.
	And	
ENGL 251	American Literature I	3 cr.
	or	
ENGL 252	American Literature II	3 cr.
	And	
ENGL 314	Shakespeare: Plays and Poems	3 cr.
	or	
ENGL 315	Shakespeare: The Tragedies	3 cr.
ENGL 3XX/4XX: With approval of the Department Chair, courses in other departments may be substituted.		

**Freshman Year- Fall Semester**

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
GEN XXX	General Elective	3 cr.
CS 13X	Computer Competence	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

ENGL 237	Creative Writing	3 cr.
ENGL 2xx	One literature survey course	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

ENGL 2XX	Two literature survey courses	6 cr.
CUL XXX	Cultural Perspective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
	And	
ENGL 314	Shakespeare: Plays and Poems	3 cr.
	or	
ENGL 315	Shakespeare: The Tragedies	3 cr.
	or	
ENGL 316	Shakespeare: The Comedies and Histories	3 cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

ENGL 351	Fiction Workshop	3 cr.
ENGL XXX	English Elective	3 cr.
LAB/NSP XXX	Lab Science or Natural Sci Persp.	3 cr.
GEN XXX	General Elective	3 cr.

GEN XXX	General Elective	3 cr.
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**Subtotal: 15**

**Junior Year - Spring Semester**

ENGL 352	Poetry Workshop	3 cr.
ENGL 338/411	Major Authors	3 cr.
ENGL XXX	English Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

ENGL 354	Creative Non-Fiction Workshop	3 cr.
ENGL XXX	English Elective	3 cr.
GEN 3XX	General Electives	9 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

ENGL 410	English Seminar	3 cr.
GEN 3XX	General Electives	13 cr.

**Subtotal: 16**

Courses taken to complete the major fulfill the A & S Writing Intensive Requirement.

Total Credit Hours: 122

**Criminal Justice Major**

**General Information**

The Bachelor of Science in Criminal Justice program is primarily designed for students who intend to pursue a professional career in such fields as law enforcement, corrections, probation and parole, court administration, or the juvenile justice system. The program also provides a solid foundation for students who wish to pursue graduate studies.

**Career Opportunities**

Employment opportunities for the criminal justice professional are extensive with well over 200 different career patterns in the field. Typical careers of graduates include career law enforcement officer positions at the local, state, and federal levels; professional positions in the field of corrections, probations, and parole; positions in court administration and in the juvenile justice system; social work; and positions as industrial security specialists with major security companies and corporations.

**Criminal Justice and Sociology Faculty (p. 33)**

Professors: John Claffey, Denise Kindschi Gosselin

Associate Professor:

Assistant Professors: Laura Hansen, Sarah Stein

**Program Goals and Mission**

Generally, the program goals intend to help students to acquire a higher level of knowledge, understanding, and competencies specific to criminal justice professions through curricula and other activities:

- **Foundation of Knowledge:** Students will develop an understanding of the major concepts, basic, and advanced terms, theories, and empirical findings in the discipline.
- **Applications of Knowledge:** Students will develop an understanding of the theoretical perspectives, sociocultural factors, and empirical findings important to policing a democratic society.
- **Professional Ethics:** Students will develop an understanding of personal and professional values to function ethically as individuals and professionals in their work group; local, and global communities.
- **Science:** Students will develop an understanding of important social scientific concepts and methods of scientific inquiry.

In the accomplishment of these goals, the program mission is for students to:

- develop a higher-level fund of personal and professional knowledge;
- become competent problem solvers who apply knowledge to criminal justice settings and problems;
- translate knowledge into informed professional practices; and
- convey knowledge through the delivery of high-quality services that are responsive to the needs of the community and the profession.

#### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

### Degree Requirements

Required criminal justice courses (34 credit hours)

CJ 101	Introduction to Criminal Justice	3 cr.
CJ 210/SO 210	Criminology	3 cr.
CJ 211	Corrections	3 cr.
CJ 218	Police and Society	3 cr.
CJ 230	Criminal Law	3 cr.
CJ 232	Criminal Procedure	3 cr.
CJ 234	The Judicial Process	3 cr.
CJ 300/SO 300	Applied Analytic Methods	3 cr.
CJ 301/SO 301	Research Methods	4 cr.
	or	
CJ 307/SO 307	Qualitative Research Methods	4 cr.
CJ 340	Ethical Decision-Making	3 cr.
CJ 450	Senior Seminar	3 cr.
	or	
CJ 480	Internship in Criminal Justice	3 cr.
		<b>Subtotal: 34</b>

An additional 12 credit hours in criminal justice courses is required. Students may elect to pursue a criminal justice track, which will be reflected on the student's transcript. Those who choose not to

pursue one of the available track programs, may select from among upper level criminal justice courses to satisfy their degree requirements.

### Criminal Justice Track Options

#### Degree Requirements

##### Crime and Society

CJ 235/SO 235	Domestic Violence	3 cr.
CJ 304/SO 304	Children, Family, and the State	3 cr.
CJ 342/SO 342	Juvenile Delinquency	3 cr.
	And	
CJ 231	Criminal Investigation	3 cr.
	or	
CJ 302	Women and the Criminal Justice System	3 cr.
	or	
CJ 306/SO 306	Disability and Mental Health Issues in Criminal Justice	3 cr.

**Subtotal: 12**

##### Criminal Investigation

CJ 220	Evidence	3 cr.
CJ 231	Criminal Investigation	3 cr.
CJ 313	CJ Interviewing and Interrogation	3 cr.
	And	
CJ 325	Forensic Science	3 cr.
	or	
CJ 348	Introduction to Cyber Crimes	3 cr.
	or	
CJ 350	Security Management	3 cr.
	or	
CJ 405	Organized Crime	3 cr.

**Subtotal: 12**

##### Terrorism and Homeland Security

CJ 260	Introduction to Terrorism and Homeland Security	3 cr.
CJ 362	Counter-terrorism	3 cr.
CJ 363	Weapons of Mass Destructions	3 cr.
	And	
CJ 220	Evidence	3 cr.
	or	
CJ 231	Criminal Investigation	3 cr.
	or	
CJ 313	CJ Interviewing and Interrogation	3 cr.
	or	

CJ 364	Terrorism and Business	3 cr.
		<b>Subtotal: 12</b>

Total Credit Hours: 36

**Criminal Justice Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year- Fall Semester**

CJ 101	Introduction to Criminal Justice	3 cr.
SO 101	Introduction to Sociology	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 15</b>

**Freshman Year - Spring Semester**

HIST XXX	Historical Perspective	3 cr.
CJ 218	Police and Society	3 cr.
ENGL 133	English Composition II	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
And		
PSY 101	Introduction to Psychology	3 cr.
or		
CJ 2XX	Criminal Justice Elective	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

CJ 211	Corrections	3 cr.
POSC 102	American National Government	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
And		
CJ 210/SO 210	Criminology	3 cr.
or		
PSY 101	Introduction to Psychology	3 cr.
And		
SO 211	Race and Ethnicity	3 cr.
or		
SO 309	Deviance	3 cr.
or		
PSY 326	Abnormal Psychology	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
CJ 2XX or 3XX	Criminal Justice Elective	3 cr.
CJ 2XX or 3XX	Criminal Justice Elective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
NSP	Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

CJ 230	Criminal Law	3 cr.
CJ 234	The Judicial Process	3 cr.
CJ 300/SO 300	Applied Analytic Methods	3 cr.
CS 131	Computing for the Arts and Sciences	3 cr.
or		
CS 133	Introduction to Informatics	3 cr.
PH XXX	Ethical Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

SO 301/CJ 301	Research Methods	4 cr.
or		
SO 307/CJ 307	Qualitative Research Methods	4 cr.
CJ 340	Ethical Decision-Making	3 cr.
CJ 232	Criminal Procedure	3 cr.
GEN XXX	General Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

CJ 3XX	Criminal Justice Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
And		
CJ 341	Constitutional Issues in Criminal Justice	3 cr.
or		
POSC 325	Constitutional Law	3 cr.
And		
CJ 480	Internship in Criminal Justice	3 cr.
or		
CJ 450	Senior Seminar	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

CJ 3XX	Criminal Justice Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN 3XX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

## Notes:

1. CJ 210/SO 210 - Criminology will also satisfy the 200 level writing intensive course (WIC)
2. CJ 480 Internship in Criminal Justice will satisfy the CJ 450 Senior Seminar requirement.

Total Credit Hours: 122

**Economics Major****General Information**

The objective of the Economics major is to provide students with the analytical tools that enable them to think for themselves, not only about economics but also about the world around them. Courses range from the traditional, such as Money and Banking or American Economic History, to the analytical, such as Microeconomics or Macroeconomics. Some courses feature hands-on experience with both microcomputers and the University's mainframe computer. The Senior Seminar provides experience in supervised research and delivery of an oral presentation.

**Career Opportunities**

Employment opportunities are available in the private, public, and nonprofit sectors. Typical employment might be in banking, with public sector agencies such as a board of health, with the federal government, as a stockbroker, in secondary level teaching, or in private sector management. Students with just one year of graduate training may enter Federal Civil Service at the GS 7 or GS 9 level.

Graduates are well positioned for graduate work in economics, law, business, and public administration. Those pursuing graduate work in economics can expect to find teaching positions at colleges and universities.

**Economics Faculty** (p. 32)**Program Objectives**

1. To provide a thorough understanding of economic theory.
2. To apply economic theory to the analysis of a variety of social, political, and business issues.
3. To develop students' ability to think creatively and independently about a variety of social, political, and business issues.
4. To apply critical thinking and problem solving skills to developing solutions to problems at the level of an individual decision making unit like a business firm or a nonprofit organization.

5. To apply critical thinking and problem solving skills to developing solutions to problems at the level of the nation or the world.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

Required economics and mathematics courses (24 credit hours):

EC 111	Principles of Microeconomics	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
EC 215	Intermediate Macroeconomics	3 cr.
EC 216	Intermediate Microeconomics	3 cr.
EC 490	Seminar: Issues in Contemporary Economics	3 cr.
And		
MATH 111	Analysis for Business and Economics	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
or		
QR 112	Quantitative Reasoning for Business	3 cr.

**Subtotal: 24**

MATH 123 and MATH 124 can replace MATH 111 and MATH 123

Fifteen additional credit hours selected from:

EC 200/300/400 Upper-level economics courses

**Subtotal: 15**

Eighteen additional credit hours in social science courses, including three credit hours each of political science, history, psychology, and sociology.

**Subtotal: 18**

(Also satisfies the Social and Behavioral Science Perspective.)

Subtotal: 57

The 2.0 required grade point average in the major is based upon all EC courses pursued as a part of the student's degree program.

Total Credit Hours: 57

**Economics Suggested Sequence of Courses**

Please note: Students who join the Department of Economics at the beginning of their sophomore year can begin taking their major requirement then and complete the program without academic sacrifice.

## Degree Requirements

### Freshman Year - Fall Semester

EC 111	Principles of Microeconomics	3 cr.
MATH 111	Analysis for Bus and Economics	3 cr.
LA 100	First Year Seminar	2 cr.
CS 13X	Computer Competence	3 cr.
ENGL 132	English Composition I	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

### Freshman Year - Spring Semester

EC 112	Principles of Macroeconomics	3 cr.
ENGL 133	English Composition II	3 cr.
PH XXX	Ethical Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.
GEN XXX	General Elective	1 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 17**

### Sophomore Year - Fall Semester

EC 215	Intermediate Macroeconomics	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
CUL XXX	Cultural/Aesthetic Perspective	3 cr.
POSC XXX	Social Science Requirement	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.

or

PSY 207	Statistics for the Behavioral Sciences	3 cr.
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**Subtotal: 15**

### Sophomore Year - Spring Semester

EC 216	Intermediate Microeconomics	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
PSY XXX	Behavioral Science Requirement	3 cr.
EC 2XX/3XX	Economics Elective	3 cr.

**Subtotal: 15**

### Junior Year - Fall Semester

EC 3XX/4XX	Economic Elective	3 cr.
EC 3XX/4XX	Economic Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
SO XXX	Behavioral Science Requirement	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

### Junior Year - Spring Semester

EC 3XX/4XX	Economic Elective	3 cr.
GEN XXX	General Elective	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

### Senior Year - Fall Semester

EC 3XX/4XX	Economic Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
SBP XXX	Behavioral Science Requirement	3 cr.

**Subtotal: 15**

### Senior Year - Spring Semester

EC 490	Seminar: Issues in Contemporary Economics	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Note: A one-credit course must be taken at some point during the four-year sequence.

Total Credit Hours: 122

## Education Majors

### General Information

Throughout the history of Western New England University, many graduates have gone on to careers in education. Since the establishment of the College of Arts and Sciences in 1967, the University has offered secondary education teacher education. Following this tradition, in 1997 the University initiated a teacher licensure program for students interested in preparing for careers in elementary education, grades 1-6.

The philosophy of these majors is to provide academically well-prepared students with the professional preparation necessary to become effective teachers. Classes emphasize skills in classroom instruction, assessment, and management. The Massachusetts Department of Elementary and Secondary Education has approved all of the University's teacher preparation programs through processes and standards which provide reciprocity in licensure of educational personnel. They are on the NASDTEC Interstate Contract list of approved programs.

While Western New England University programs are widely reciprocal with other states, students are advised that some states may have additional requirements for licensure. An interested student should discuss this possibility with a member of the Education Department, or look at the Department of Education website for the state in question.

A regional teaching license, the Northeast Regional Credential, allows teachers in New England and New York to take a job immediately in any of the other six states and to have up to two years to complete any unmet requirements for licensure in the new state. For further information, students should consult with their advisor or the Department of Education website for the appropriate State.

Licensure requires more than just meeting course requirements. It is based upon completing University requirements, state licensure requirements and passing required MTEL exams. Interested persons may get a more detailed description of the requirements for graduating as a candidate eligible for teacher licensure in Massachusetts by contacting the Education department or looking at the handbooks online. It is important to note that the designs of the following majors reflect changes that have been made to adapt to new Massachusetts regulations that went into effect July 2013. Students who transfer into the University may not be able to graduate in four years.

Students who completed a licensure major in the academic year 2014-2015, had a 100% pass rate on all Massachusetts Tests for Educator Licensure (MTEL).

### Education Faculty (p. 32)

#### Elementary Teacher Education

Students preparing for the Elementary Teacher license must select a major in one of the prescribed liberal arts and sciences disciplines and complete the elementary education major; they are completing a double major. Students can complete the University's General University requirements, the College of Arts and Sciences requirements, and the elementary education requirements in four years with the following majors: English, history, mathematics, sociology and psychology. Undergraduates are urged to work with the Education Department early in their university careers to carefully plan their university course of study in order to complete both required majors requirements. A student should apply to the Elementary Education Program by the end of their first year. A student will be notified of acceptance into the program during the spring semester of junior year.

Minimum eligibility requirements for acceptance into the program are:

1. Submission of an Elementary Program Application by the end of a student's first year.
2. A cumulative average of at least 2.80 in all courses, including a 2.80 in the major field and in the preliminary education courses,
3. A letter of recommendation from a member of the Arts and Sciences faculty (not education),
4. Successful completion of three Massachusetts Tests for Educator Licensure (MTEL). The MTEL Communication and Literacy Skills Test, the MTEL Foundations of Reading Test and the MTEL General Curriculum Test must be taken and passed by the spring of junior year; passing scores must be obtained on all parts of these exams.

Students will be notified in the spring of their junior year about their eligibility for the student teaching block to be completed in fall of the senior year. The criteria for advancement will be: the recommendation of an Arts and Sciences faculty member; a recommendation from a cooperating teacher from one of the student's fieldwork courses; appropriate grade point averages; and passing MTEL scores.

Under exceptional circumstances, a student with grade point averages below 2.80 may be admitted to the program. Admittance is

determined by writing a letter requesting a waiver for the GPA requirement outlining valid reasons for the lower GPA, submitted to the chairperson of the education department and by passing all required MTEL tests before student teaching.

The recommendation for licensure comes at the end of the practicum semester and is a joint recommendation of the program supervisor and supervising practitioner based on the student's successful completion. CAP identifies student competence on state standards as outlined by the Massachusetts Department of Education during a 300-hour practicum. Students apply directly to the state for the teaching license upon graduation from the University.

Currently the University's Elementary Education Program offers students the opportunity to prepare for the Massachusetts Initial License, which is valid for five years of employment. The Massachusetts Professional License is then required of graduates and involves the completion of a Performance Assessment Program or an appropriate master's degree program, and three years of employment under the license.

Successful completion of the University's state approved program and the Massachusetts Tests for Educator Licensure (MTEL) leads the graduate to eligibility for licensure in Massachusetts and 39 other states through the NASDTEC/Interstate Contract. Regional licensure, which includes the six New England states and New York, is also available to students who successfully complete the University's state approved program at this level. This licensure allows an applicant to receive the initial license in a regional compact state and to take two years to complete any special license requirements unique to that state.

To better plan for licensure in other states, Western New England University students are urged to request information early in their University years directly from the Department of Education in the state(s) from which they seek an additional license.

Required courses for students enrolled in the Elementary Education Program:

\*Course requires 25 hours of fieldwork for ED 350, ED 375, and ED 425.

\*\*Course includes 300 hours in a full-time field-based practicum (student teaching)

Since ED 425, ED 479, and ED 480 are taken as a block in September, with ED 479 requiring full-time student teaching each day during October, November, and December, students should keep the fall semester of their senior year available for only these three courses.

## Elementary Education Major Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year - Fall Semester

ENGL 132	English Composition I	3 cr.
MATH 107	Mathematics For Elementary Education I	3 cr.
HIST 111	United States History to 1877	3 cr.
PSY 101	Introduction to Psychology	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
LA 100	First Year Seminar	2 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
MATH 108	Mathematics for Elem Ed II	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.
POSC 102	American National Government	3 cr.
MAJOR XXX	(Psyc majors take PSY 207)	3 cr.
PEHR 163	Games Children Play (Required for Elementary Education Majors)	1 cr.

**Subtotal: 16**

First attempt on Communication and Literary Skills MTEL encouraged in Spring semester.

**Sophomore Year - Fall Semester**

ED 350	Teaching of Elementary Reading and Language Arts	3 cr.
HIST 205	World History, Prehistory-1500CE	3 cr.
BIO 103	Life Sciences I	3 cr.
ENGL 206	Writing for Business	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

ED 375	Elementary Curriculum and Methods	3 cr.
ED 252	Survey of Geography	1 cr.
PHYS 105	Basic Physics	3 cr.
HIST 206	World History, 1500CE-Present	3 cr.
PSY 304	Educational Psychology	3 cr.
MAJOR XXX	Go online for courses in major	3 cr.
ED 275	Teaching English Language Learners	3 cr.

**Subtotal: 19**

First attempts on Foundations of Reading and/or General Curriculum MTEL encouraged in this year.

**Junior Year - Fall Semester**

CS 13X	Computer Competence	3 cr.
ENGL 339	Children's Literature	3 cr.
EC 111	Principles of Microeconomics	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 18**

**Junior Year - Spring Semester**

PH XXX	Ethical Perspective	3 cr.
ED 301	Principles and Problems of Education	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
MAJOR XXX	See catalogue for major courses	3 cr.

**Subtotal: 15**

All MTEL tests must be passed at this point.

**Senior Year - Fall Semester**

ED 425	Elementary Education Topics	3 cr.
ED 479	Elementary Teaching Practicum	9 cr.
ED 480	Elementary Practicum Seminar	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
MUS 101	Introduction to Music	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.
MAJOR XXX	See catalogue for courses in major	3 cr.

**Subtotal: 15**

Subtotal: 128

Requires 25-hour prepracticum classroom experience and journal. Journal topics are related to course. Prepracticum hours must be completed in any sophomore or junior semester, ideally one experience in sophomore year and one experience in junior year.

Major xxx slots identify where courses required by content major are taken.

\*Two courses in the curriculum must be designated "Writing Intensive."

Total Credit Hours: 128

**Elementary Education BA in the Mathematical Sciences, Teacher Preparation-Elementary School Suggested Sequence of Courses**

**Degree Requirements**

The typical course schedule for the Bachelor of Arts degree in the Mathematical Sciences, teacher preparation-elementary education, would be constructed as indicated below.

**Mathematical Sciences Teacher Preparation - Elementary School**

CS 170	Technology in Mathematics	3 cr.
MATH 107	Mathematics For Elementary Education I	3 cr.

MATH 108	Mathematics for Elem Ed II	3 cr.
MATH 120	Intro Stats for the Arts & Sci	3 cr.
	or	
MATH 121	Introductory Probability and Statistics	3 cr.
MATH 133	Calculus I	4 cr.
MATH 134	Calculus II	4 cr.
MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.
MATH 306	Linear Algebra	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
MATH 377	Elementary Number Theory	3 cr.
MATH 451	Senior Project I	1 cr.
MATH 452	Senior Project II	2 cr.
		<b>Subtotal: 41</b>

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
MATH 133	Calculus I	4 cr.
HIST 111	United States History to 1877	3 cr.
PSY 101	Introduction to Psychology	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
LA 100	First Year Seminar	2 cr.
		<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
HIST 206	World History, 1500CE-Present	3 cr.
POSC 102	American National Government	3 cr.
CS 170	Technology in Mathematics	3 cr.
PEHR 163	Games Children Play (Required for Elementary Education Majors)	1 cr.
		<b>Subtotal: 17</b>

First attempt on Communication and Literacy Skills MTEL is encouraged in Spring Semester.

**Sophomore Year - Fall Semester**

ED 350	Teaching of Elementary Reading and Language Arts	3 cr.
BIO 103	Life Sciences I	3 cr.
MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
ENGL 339	Children's Literature	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

ED 275	Teaching English Language Learners	3 cr.
ED 375	Elementary Curriculum and Methods	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
	or	
MATH 121	Introductory Probability and Statistics	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.
ENGL 260	Literary Horizons	3 cr.
PHYS 105	Basic Physics	3 cr.
		<b>Subtotal: 18</b>

First attempts on Foundations of Reading and/or Elementary Subject Matter MTEL are encouraged in this year.

**Junior Year - Fall Semester**

PSY 304	Educational Psychology	3 cr.
EC 111	Principles of Microeconomics	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.
MATH 107	Mathematics For Elementary Education I	3 cr.
MATH 306	Linear Algebra	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

PH XXX	Ethical Perspective	3 cr.
ED 301	Principles and Problems of Education	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
	or	
MATH 377	Elementary Number Theory	3 cr.
MATH 108	Mathematics for Elementary Education II	3 cr.
HIST 205	World History, Prehistory-1500CE	3 cr.
ED 252	Survey of Geography	1 cr.
		<b>Subtotal: 16</b>

All MTEL tests must be passed at this point.

**Senior Year - Fall Semester**

ED 425	Elementary Education Topics	3 cr.
ED 479	Elementary Teaching Practicum	9 cr.
ED 480	Elementary Practicum Seminar	3 cr.
MATH 451	Senior Project I	1 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
MUS 101	Introduction to Music	3 cr.
MATH 377	Elementary Number Theory	3 cr.
	or	
MATH 371	Modern Aspects of Geometry	3 cr.
MATH 452	Senior Project II	2 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 14**

Note: the General University Requirements in Aesthetics and Cultural Studies can be satisfied by taking a single course that has a designation (CA) of fulfilling both requirements.

- ED 350, ED 375 and ED 425 require 25-hour prepracticum classroom experience and journal. Journal topics are related to course.
- Two courses in the curriculum must be designated “Writing Intensive.”
- MATH 371 and MATH 377 are offered in alternate spring semesters, so either MATH 371 or MATH 377 will be taken in the spring semester of the junior year, and the other will be taken in the spring semester of the senior year.

**Secondary Teacher Education Majors**

Students may prepare for an Initial License to teach in the secondary schools (grades 8-12 in Massachusetts, 7-12 in other states) in the following programs: biology, chemistry, English, general business, history, and mathematics.

Students selecting this career option are required to satisfy all degree requirements for a Secondary Teacher Education major of their content focus. It is important for students to speak with their academic advisors early in their university careers if they intend to pursue this major.

Students considering this major are advised to consult with the Director of the Secondary Education Program as soon as possible. A student must register with the program by the second semester of the sophomore year. A student will be notified of acceptance into the program during the spring semester of the junior year.

Minimum eligibility requirements for acceptance into the program are:

1. Submission of a Secondary Program Application during the second semester of sophomore year and a one-on-one meeting with the Director of the Secondary Education Program.
2. Cumulative average of at least 2.80 in all courses, including a 2.80 average in the major field and in preliminary education courses.
3. A recommendation from a faculty member in the student’s major department.
4. Successful completion of two Massachusetts Tests for Educator Licensure (MTEL). The MTEL Communication and Literacy Skills Test and the MTEL Subject Matter Content Test must also be taken and passed by the spring semester of junior year. Appropriate review materials are offered on campus for students.

Under exceptional circumstances, a student with grade point averages below 2.80 may be admitted to the program by passing the MTEL tests, and meeting with the Education Department Chairperson to determine if a waiver is possible.

The Secondary Education majors offer students the opportunity to prepare for the Massachusetts Initial License, which is valid for five years of employment. The Massachusetts Professional License is then required of graduates following three years of successful teaching experience and involves completion of a Performance Assessment Program or an appropriate master’s degree program.

Since ED 380, ED 403, ED 409, and ED 410 are offered in one block, students must keep the fall semester of their senior year open for these courses. The courses ED 301, PSY 304, and ED 403 each require 25 hours of field work. The course ED 409 requires a minimum of 300 hours in a full-time, field-based practicum.

**Secondary Education Biology Major Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
	And	
MATH 109	Pre-Calculus Mathematics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 121	Introductory Probability and Stats	3 cr.
ED 120	Introduction to Education	1 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

BIO 213	Ecology	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
WIC 2XX	Writing Intensive Course	3 cr.
PSY 101	Introduction to Psychology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 14**

**Sophomore Year - Spring Semester**

ED 301	Principles and Problems of Ed	3 cr.
BIO 201	Plant Biology	4 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
ED 275	Teaching English Language Learners	3 cr.
ART XXX	Aesthetic Perspective	3 cr.

**Subtotal: 17****Junior Year - Fall Semester**

BIO 306	Genetics	4 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
CS 131	Computing for the Arts and Sci	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
	And	
PHYS 101	Elements of Physics	3 cr.
	or	
PHYS 123	Physics of the Life Sciences 1	4 cr.

**Subtotal: 16-17****Junior Year - Spring Semester**

BIO 2XX	Biology Elective	4 cr.
PSY 304	Educational Psychology	3 cr.
HIST XXX	Historical Perspective	3 cr.
BIO 310	Cell Biology	4 cr.

**Subtotal: 14****Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

ILP XXX	Integrated Liberal Prof Persp.	3 cr.
BIO 2XX	Biology Elective	4 cr.
PH XXX	Ethical Perspective	3 cr.
BIO 455	Evolution	3 cr.
	And	
PHYS 15X	PHYS 15x Elective	3 cr.
	or	
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 16-17**

Total Credit Hours: 125-127

**Secondary Education Chemistry Major  
Suggested Sequence of Courses****Degree Requirements****Freshman Year- Fall Semester**

CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 133	Calculus I	4 cr.
PHYS 133	Mechanics	4 cr.

**Subtotal: 17****Freshman Year - Spring Semester**

CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
ED 120	Introduction to Education	1 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 17****Sophomore Year - Fall Semester**

CHEM 209	Organic Chemistry I	3 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
MATH 235	Calculus III	3 cr.
CS XXX	Computer Competence Requirement	3 cr.

**Subtotal: 14****Sophomore Year - Spring Semester**

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 312	Instrumental Analysis	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
WIC 2XX	Writing Intensive Course	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
ED 275	Teaching English Language Learners	3 cr.

**Subtotal: 15****Junior Year - Fall Semester**

CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
PH XXX	Ethical Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.

ILP XXX	Integrated Liberal Professional Perspective	3 cr.
PSY 101	Introduction to Psychology	3 cr.
		<b>Subtotal: 16</b>

**Junior Year - Spring Semester**

CHEM 318	Physical Chemistry II	3 cr.
CHEM 328	Physical Chemistry Laboratory II	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
PSY 304	Educational Psychology	3 cr.
ED 301	Principles and Problems of Education	3 cr.
		<b>Subtotal: 14</b>

**Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
CHEM 421	Inorganic Chemistry	3 cr.
CHEM 431	Inorganic Chemistry Laboratory	1 cr.
GEN XXX	General Elective	1 cr.
HIST 1XX	Historical Perspective	3 cr.
		<b>Subtotal: 14</b>

Total Credit Hours: 123

**Secondary Education English Major Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PSY 101	Introduction to Psychology	3 cr.
CS 13X	Computer Competence	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 15</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

MATH 1XX	Mathematical Analysis	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
ED 120	Introduction to Education	1 cr.
HIST XXX	Historical Perspective	3 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

ENGL 231	British Literature I	3 cr.
ENGL 251	American Literature I	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
And		
ENGL 214	World Literature I	3 cr.
or		
ENGL 215	World Literature II	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

ENGL 232	British Literature II	3 cr.
ENGL 252	American Literature II	3 cr.
ENGL 302	Approaches to the Study of Literature	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ED 275	Teaching English Language Learners	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

ENGL 311	The English Language	3 cr.
ENGL 260	Literary Horizons	3 cr.
PSY 304	Educational Psychology	3 cr.
And		
ENGL 314	Shakespeare: Plays and Poems	3 cr.
or		
ENGL 315	Shakespeare: The Tragedies	3 cr.
or		
ENGL 316	Shakespeare: The Comedies and Histories	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

ED 301	Principles and Problems of Education	3 cr.
ENGL 411/338	Major Authors	3 cr.
ENGL 333	Independent Study in English	1-3 cr.

LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
ENGL 354	Creative Non-Fiction Workshop	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

ENGL 410	English Seminar	3 cr.
ENGL XXX	History Underreported Lit	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

Courses taken to complete the major fulfill the A & S Writing Intensive Requirement.

Total Credit Hours: 123

**Secondary Education General Business Major****Degree Requirements****Freshman Year - Fall Semester**

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
And		
MATH 111	Analysis for Business and Economics	3 cr.
or		
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
And		
BIS 102	Problem Solving with Business Tools	3 cr.
or		
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
		<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
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COMM 100	Principles of Communication	3 cr.
PSY 101	Introduction to Psychology	3 cr.
ED 120	Introduction to Education	1 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
BIS 102	Problem Solving with Business Tools	3 cr.
or		
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
ED 275	Teaching English Language Learners	3 cr.
		<b>Subtotal: 18</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
ED 301	Principles and Problems of Education	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
or		
BUS 326	Business Planning for New Ventures	3 cr.
MAN 323	Human Resource Management	3 cr.
PH 211	Business Ethics	3 cr.
CUL XXX	Cultural Perspective	3 cr.
LAB XXX	Laboratory Science	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

PSY 304	Educational Psychology	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
BIS 210/IT 240	Foundations of Web Systems	3 cr.
BL 308	Labor Management Relations	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.

**Subtotal: 16**

**Senior Year - Spring Semester**

BL 424	Business Law for Human Resource Management	3 cr.
BUS 450	Business Strategy	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CUL XXX	Cultural Perspective	3 cr.
GEN XXX	General Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Total Credit Hours: 127

**Secondary Education History Major Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

HIST 205	World History, Prehistory-1500CE	3 cr.
HIST 111	United States History to 1877	3 cr.
MATH 1XX	Mathematics	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.

**Subtotal: 14**

**Freshman Year - Spring Semester**

HIST 206	World History, 1500CE-Present	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.

MATH 1XX	Mathematical Analysis	3 cr.
PSY 101	Introduction to Psychology	3 cr.
ENGL 133	English Composition II	3 cr.
ED 120	Introduction to Education	1 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 17**

**Sophomore Year - Fall Semester**

POSC 102	American National Government	3 cr.
EC 111	Principles of Microeconomics	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
GEN XXX	General Elective	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Spring Semester**

SO 101	Introduction to Sociology	3 cr.
CS 13X	Computer Competence	3 cr.
HIST 2XX	Methods Seminar	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
ED 301	Principles and Problems of Education	3 cr.
ED 275	Teaching English Language Learners	3 cr.

**Subtotal: 18**

**Junior Year - Fall Semester**

PH XXX	Ethical Perspective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
GEOG 101	World Geography	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
PSY 304	Educational Psychology	3 cr.
XXX HIST	History Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.

ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
HIST 490	Junior and Senior Seminar in History	3 cr.
		<b>Subtotal: 15</b>

\* Two courses must be designated as writing intensive.

Total Credit Hours: 126

## Secondary Education Mathematical Sciences Major Suggested Sequence of Courses

**Degree Requirements****Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
MATH 133	Calculus I	4 cr.
HIST XXX	Historical Perspective	3 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.
BIO 107	General Biology I	3 cr.
	And	
BIO 117	General Biology Laboratory I	1 cr.
	or	
CHEM 105	General Chemistry I	4 cr.
	or	
PHYS 133	Mechanics	4 cr.
		<b>Subtotal: 17</b>

**Freshman Year - Spring Semester**

CS 170	Technology in Mathematics	3 cr.
ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
PH 204	Symbolic Logic	3 cr.
ED 120	Introduction to Education	1 cr.
BIO 108	General Biology II	3 cr.
	And	
BIO 118	General Biology Laboratory II	1 cr.
	or	
CHEM 106	General Chemistry II	4 cr.

	or	
PHYS 134	Electricity and Magnetism	4 cr.
		<b>Subtotal: 18</b>

**Sophomore Year - Fall Semester**

MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 306	Linear Algebra	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
PSY 101	Introduction to Psychology	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Spring Semester**

MATH 282	Foundations of Mathematics II	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
	or	
MATH 121	Introductory Probability and Statistics	3 cr.
CS 171	Programming for Mathematics	4 cr.
WIC 2XX	Writing Intensive Course	3 cr.
ED 301	Principles and Problems of Education	3 cr.
		<b>Subtotal: 16</b>

**Junior Year - Fall Semester**

MATH 418	Introduction to Modern Algebra	3 cr.
MATH XXX	Mathematics Elective	3 cr.
MATH XXX	Mathematics Elective	3 cr.
ED 275	Teaching English Language Learners	3 cr.
PH XXX	Ethical Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
		<b>Subtotal: 18</b>

**Junior Year - Spring Semester**

MATH 421	Real Analysis	3 cr.
PSY 304	Educational Psychology	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
	or	
MATH 377	Elementary Number Theory	3 cr.
MATH 375	Creative Problem Solving	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
MATH 302	MTEL Prep	2 cr.
		<b>Subtotal: 17</b>

**Senior Year - Fall Semester**

MATH 451	Senior Project I	1 cr.
ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.

**Subtotal: 17**

**Senior Year - Spring Semester**

MATH XXX	Mathematics Elective	3 cr.
MATH 452	Senior Project II	2 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
	or	
MATH 375	Creative Problem Solving	3 cr.
MATH 377	Elementary Number Theory	3 cr.
	or	
MATH 371	Modern Aspects of Geometry	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 14**

Note: the General University Requirements in Aesthetics and Cultural Studies can be satisfied by taking a single course that has a designation of fulfilling both requirements.

Total Credit Hours: 133

**English Major**

**General Information**

English majors at Western New England University learn to write and speak effectively as they develop awareness of the ethical, moral, cultural, historical, and social issues that are embedded in both traditional and underrepresented literatures. They graduate prepared to enter a variety of academic, educational, corporate, or government settings. Furthermore, as they analyze texts and develop skill in reasoning, conducting research, and formulating clear arguments, they broaden their perspectives, increase their intellectual curiosity and aesthetic appreciation, and identify themselves as active, lifetime learners.

**Career Opportunities**

Because English majors graduate with writing, speaking, and analytical skills that have been developed through four years, they are highly desirable job applicants in a number of areas. Our graduates have been successfully employed in primary and secondary schools, in writing-centered professions, and in a variety of business settings. Some have continued their studies in English or communications, completing master's and doctoral degrees. Law schools look for English majors because they want students who have learned how to think critically, articulate their ideas clearly, and summarize complex issues succinctly. English is a perfect major for those hoping to complete the University's 3+3 Law program (which enables students to complete both undergraduate and law degrees in six years). A

number of our majors have received law degrees and are now practicing that profession.

Writing skills can lead directly to employment in a number of other fields, including journalism, public relations, and technical writing. Many newspaper and magazine editors say they look for English majors because they have been taught how to write for various audiences. Many companies are hiring English majors for technical writing jobs because English majors are taught how to translate ideas and instructions into language that a general audience can understand. Grant writers are needed in all areas: for academic research, political foundations, and corporate development. The English degree can create significant opportunities in the world of professional writing when coupled with an internship or two.

Additionally, many businesses seek to hire English majors for entry-level positions because they are capable learners who have highly developed analytic skills, broad backgrounds, and excellent communication skills.

**English Faculty** (p. 33)

**Program Objectives**

The English faculty engage students in learning experiences structured to help them develop the following:

**Flexibility and Good Judgment**

Our students learn to recognize and appreciate different experiences, other cultures, and new points of view. They also learn to examine evidence carefully and to make informed value judgments.

**Breadth of Perspective and Depth of Knowledge**

Our students examine the literature of different eras and cultures, relating the creative representation of human society in literature to the broader contexts of history, philosophy, and cultural change. They also deepen and enrich their understanding of at least one literary tradition and are encouraged to pursue more advanced study in particular areas of interest.

**Ability to Analyze and Synthesize**

Our students use critical thinking to analyze texts and situations, breaking them down into manageable "pieces." They also seek patterns, make significant connections, and reconnect the parts they analyze into meaningful wholes.

**Ability to Learn and to Share Learning**

Our students gather, value, and synthesize information in their effort to understand literary works and cultural trends. They also learn the rhetorical skill necessary to present what they learn to others, to share their learning instead of simply "collecting" it.

**Self-confidence and Self-assessment**

Our students are encouraged to be creative, to use their imaginations, and to take chances. They also receive rigorous critical feedback and are encouraged to apply high standards to everything they do. To learn, one must let go of the idea that one knows everything already. Understanding that, we seek to establish a learning environment that is both fun and serious.

**Technological Comfort and Technological Questioning**

Our students learn to be comfortable with computers, with word-processing software, and with the process of writing and thinking "on the computer." But they are also encouraged to question the value and necessity of new technologies and their applications—and to have alternatives on hand if the technology crashes.

**Problem-solving and Problem Recognition**

Our students learn how to solve problems, to interpret new situations, and to “make sense” of complexity. They also learn how to recognize problems, even in areas that are not usually questioned. We aim to help students recognize assumptions made by institutions and cultures, to question and reassess those value judgments for themselves, and to take an active role in reshaping them.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

The following classes are required for all English Majors:

ENGL 231	British Literature I	3 cr.
ENGL 232	British Literature II	3 cr.
ENGL 251	American Literature I	3 cr.
ENGL 252	American Literature II	3 cr.
ENGL 302	Approaches to the Study of Lit	3 cr.
	And	
ENGL 314	Shakespeare: Plays and Poems	3 cr.
	or	
ENGL 315	Shakespeare: The Tragedies	3 cr.
	or	
ENGL 316	Shakespeare: Comedies and Histories	3 cr.

Four additional courses, of which one must treat: a major author or authors, and another must treat a historically under represented literature.

**English Suggested Sequence of Courses****Degree Requirements****Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
GEN XXX	General Elective	3 cr.
CS 13X	Computer Competence	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15****Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PH XXX	Ethical Perspective	3 cr.
GEN XXX	General Elective	3 cr.

HIST XXX	Historical Perspective	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

ENGL XXX	Two literature survey courses from among ENGL 231, 232, 251 or 252	6 cr.
SBP XXX	Soc Science Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

ENGL XXX	Two literature survey courses from among ENGL 231, 232, 251 or 252	6 cr.
ENGL 302	Approaches to the Study of Literature	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

ART XXX	Aesthetic Perspective	3 cr.
ENGL XXX	English Elective	3 cr.
CUL XXX	Cultural Perspective	3 cr.
GEN XXX	General Elective	3 cr.
	And	
ENGL 314	Shakespeare: Plays and Poems	3 cr.
	or	
ENGL 315	Shakespeare: The Tragedies	3 cr.
	or	
ENGL 316	Shakespeare: The Comedies and Histories	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

ENGL XXX	Any upper division writing course	3 cr.
ENGL XXX	English Elective	3 cr.
ENGL XXX	English Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

ENGL XXX	English Elective	3 cr.
ENGL XXX	English Elective	3 cr.

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.

**Subtotal: 16**

**Senior Year - Spring Semester**

ENGL 410	English Seminar	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.

**Subtotal: 15**

Total Credit Hours: 122

**Forensic Biology Major**

**General Information**

The Forensic Biology curriculum is designed to provide the student with a solid background in the scientific principles that underlie forensic techniques. Skills are acquired through coursework augmented by practical laboratory experience.

**Career Opportunities**

A baccalaureate degree in forensic biology provides diverse opportunities for employment as forensic scientists or as laboratory analysts or for advanced training in forensics and related fields.

**Physical and Biological Faculty** (p. 33)

**Forensic Biology Objectives:**

To demonstrate

1. Knowledge of basic structure and functioning of cells.
2. To understand the principles and mathematical analysis of Mendelian and non-Mendelian inheritance.
3. To understand the structure and function of nucleic acids and molecular controls.
4. To collect and preserve forensic evidence using established protocol.
5. Plan and perform analyses of both biological and nonbiological forensic evidence.
6. Apply chemical, physical, and biological principles to the design of procedures for the analysis of forensic evidence.
7. Communicate clearly and effectively the results and reliability of an analysis of forensic evidence.
8. Demonstrate ability to function as an ethical member of the criminal justice system.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

Required Science courses: (74 credit hours)

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
BIO 401	Recombinant DNA/Fingerprinting	3 cr.
BIO 306	Genetics	4 cr.
BIO 203	Microbiology	4 cr.
BIO 310	Cell Biology	4 cr.
CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
FS 201	Introduction to Forensics	4 cr.
FS 240	Scientific Evidence	3 cr.
FS 310	Crime Scene Processing	3 cr.
FS 325	Criminalistics I	4 cr.
FS 426	Criminalistics II	4 cr.
FS 480	Internship in Forensic Science	1-3 cr.
	or	
FS 333	Independent Study in Forensic Science	1-3 crs.
	And	
PHYS 123	Physics of the Life Sciences 1	4 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 74**

Required courses in Math and Computer and Criminal Justice courses

MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
CJ 101	Introduction to Criminal Justice	3 cr.
CS XXX	Computer Science	3 cr.

**Subtotal: 12**

The 2.0 required grade point average in the major will be based upon all BIO, CHEM, and FS courses pursued as a part of the student's degree program

Total Credit Hours: 86

## Forensic Biology Suggested Sequence of Courses

The suggested sequence of courses in years two, three, and four is an example only. Some offerings for these years will alternate and the exact sequence will require consultation with the faculty and deans.

### Degree Requirements

#### Freshman Year - Fall Semester

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.

**Subtotal: 16**

#### Freshman Year - Spring Semester

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
CJ 101	Introduction to Criminal Justice	3 cr.
ENGL 133	English Composition II	3 cr.
MATH 121	Introductory Probability and Stats	3 cr.

**Subtotal: 17**

#### Sophomore Year - Fall Semester

CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
FS 201	Introduction to Forensics	4 cr.
GEN XXX	General Elective	3 cr.
PH 208	Ethics	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 15**

#### Sophomore Year - Spring Semester

ART XXX	Aesthetic Perspective	3 cr.
BIO 203	Microbiology	4 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CS XXX	Computer Competence Requirement	3 cr.
FS 240	Scientific Evidence	3 cr.

**Subtotal: 17**

#### Junior Year - Fall Semester

BIO 306	Genetics	4 cr.
FS 310	Crime Scene Processing	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

#### Junior Year - Spring Semester

BIO 310	Cell Biology	4 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
GEN XXX	General Elective	3 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 15**

#### Senior Year - Fall Semester

BIO 401	Recombinant DNA/Fingerprinting	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.
GEN XXX	General Elective	3 cr.
FS 325	Criminalistics I	4 cr.

**Subtotal: 16**

#### Senior Year - Spring Semester

FS 426	Criminalistics II	4 cr.
FS 480	Internship in Forensic Science	1-3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 11-13**

Total Credit Hours: 123-125

## Forensic Chemistry Major

### General Information

The forensic chemistry curriculum is designed to provide the student with a solid background in the chemical principles that underlie forensic techniques. Skills are acquired through coursework augmented by practical laboratory experience.

### Career Opportunities

A baccalaureate degree in forensic chemistry provides diverse opportunities for employment as forensic scientists or as laboratory analysts or for advanced training in forensics and related fields.

### Physical and Biological Faculty (p. 33)

### Forensic Chemistry Objectives:

1. Perform accurate stoichiometric and chemical equilibrium calculations.

2. Predict and explain the reactivity of an organic or inorganic compound from a knowledge of its structure.
3. Assess the thermodynamic and kinetic stability of a chemical system.
4. Propose a reasonable mechanism for an organic or inorganic reaction.
5. Apply basic quantum mechanical concepts to the study of chemical systems.
6. Synthesize and characterize inorganic and organic compounds.
7. Design and perform a qualitative and quantitative analysis of a sample of matter, using both wet and instrumental methods.
8. Plan and execute experiments through the proper use of library resources.
9. Analyze data statistically and assess reliability of results.
10. Communicate effectively through oral and written reports.
11. Collect and preserve forensic evidence using established protocol.
12. Plan and perform analyses of both biological and non-biological forensic evidence.
13. Apply chemical, physical, and biological principles to the design of procedures for the analysis of forensic evidence.
14. Communicate clearly and effectively the results and reliability of an analysis of forensic evidence.
15. Demonstrate ability to function as an ethical member of the criminal justice system.

#### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

#### Degree Requirements

Required Science courses: (70 credit hours)

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
CHEM 312	Instrumental Analysis	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
CHEM 402	Toxicology	3 cr.
CHEM 421	Inorganic Chemistry	3 cr.

CHEM 431	Inorganic Chemistry Laboratory	1 cr.
CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
FS 201	Introduction to Forensics	4 cr.
FS 240	Scientific Evidence	3 cr.
FS 310	Crime Scene Processing	3 cr.
FS 325	Criminalistics I	4 cr.
FS 426	Criminalistics II	4 cr.
FS 480	Internship in Forensic Science	1-3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 70**

#### Required courses in Math and Computer Science (12)

MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
CJ 101	Introduction to Criminal Justice	3 cr.
CS XXX	Computer Competence Requirement	3 cr.

**Subtotal: 12**

The 2.0 required grade point average in the major will be based upon all BIO, CHEM, and FS courses pursued as a part of the student's degree program.

Total Credit Hours: 82

#### Forensic Chemistry Suggested Sequence of Courses

The suggested sequence of courses in years two, three, and four is an example only. Some offerings for these years will alternate and the exact sequence will require consultation with the faculty and deans.

#### Degree Requirements

##### Freshman Year - Fall Semester

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.

**Subtotal: 16**

##### Freshman Year - Spring Semester

CJ 101	Introduction to Criminal Justice	3 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.

MATH 121	Introductory Probability and Stats	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 14****Sophomore Year - Fall Semester**

CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
FS 201	Introduction to Forensics	4 cr.
PH 208	Ethics	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16****Sophomore Year - Spring Semester**

FS 240	Scientific Evidence	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 15****Junior Year - Fall Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
CS XXX	Computer Competence Requirement	3 cr.
FS 310	Crime Scene Processing	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15****Junior Year - Spring Semester**

CHEM 312	Instrumental Analysis	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 14****Senior Year - Fall Semester**

CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
FS 325	Criminalistics I	4 cr.
CHEM 402	Toxicology	3 cr.

GEN XXX	General Elective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.

**Subtotal: 17****Senior Year - Spring Semester**

FS 426	Criminalistics II	4 cr.
FS 480	Internship in Forensic Science	1-3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CHEM 421	Inorganic Chemistry	3 cr.
CHEM 431	Inorganic Chemistry Laboratory	1 cr.

**Subtotal: 17**

Total Credit Hours: 124

**Health Sciences Major****General Information**

The goal of the Health Sciences major is to provide students with the undergraduate background necessary to function in jobs, or to obtain more advanced training and education at the graduate level.

**Career Opportunities**

Biomedical research or Professional programs in various health related fields.

**Physical and Biological Faculty (p. 33)****Program Objectives:**

1. To understand human biology at the cell, tissue and organ system levels of organization.
2. To understand the homeostatic processes that underlie physiological mechanisms of humans.
3. To understand the application of scientific principles to the methods that lead to the improvement of health and the prevention of disease and disability.
4. To understand the principles and mathematical analysis of genetics.
5. To communicate effectively through oral and written reports.
6. To develop quantitative problem solving skills and data analysis.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

**Degree Requirements**

The 2.0 required grade-point average in the major would be based upon all HS, BIO and CHEM courses pursued as a part of the student's degree program.

Required biology courses (20 credit hours)

BIO 107	General Biology I	3 cr.
BIO 108	General Biology II	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 118	General Biology Laboratory II	1 cr.
BIO 215	Anatomy and Physiology I	4 cr.
BIO 216	Anatomy and Physiology II	4 cr.
BIO 306	Genetics	4 cr.
		<b>Subtotal: 20</b>

Required health sciences courses (13 credit hours)

HS 2xx-4xx	Thirteen additional semester hours of HS 2xx-4xx courses	13 cr.
		<b>Subtotal: 13</b>

Required chemistry courses (20 credit hours)

CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
		<b>Subtotal: 20</b>

Seventeen additional credit hours in math, physics, and statistics courses

MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
		<b>Subtotal: 17</b>

Total Credit Hours: 70

**Health Sciences Suggested Sequence of Courses**

Notes: The suggested sequence of courses in years two, three, and four is an example only. Some offerings for these years will alternate and the exact sequence will require consultation with the faculty and deans.

**Degree Requirements**

**Freshman Year - Fall Semester**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.

**Subtotal: 14**

**Sophomore Year - Fall Semester**

PEHR 151	Personal Health and Wellness	1 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
PSY 101	Introduction to Psychology	3 cr.
BIO 215	Anatomy and Physiology I	4 cr.
MATH 121	Introductory Probability and Statistics	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
PSY 201	Developmental Psychology	3 cr.
CUL 2XX	Cultural Studies	3 cr.
BIO 216	Anatomy and Physiology II	4 cr.

**Subtotal: 14**

**Junior Year - Fall Semester**

PHYS 123	Physics of the Life Sciences 1	4 cr.
PH 208	Ethics	3 cr.
POSC 102	American National Government	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 16**

**Junior Year - Spring Semester**

HS 2XX	HS Elective	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
HS 3xx	HS Elective	3 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

BIO 306	Genetics	4 cr.
CS 131	Computing for the Arts and Sciences	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.
HS 3xx	HS Elective	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
PSY 326	Abnormal Psychology	3 cr.
GEN XXX	General Elective	3 cr.
ILP 3XX	Integrated Liberal Professional Perspective	3 cr.
HS 3xx	HS Elective	3 cr.

**Subtotal: 16****Premedical Students:**

Health Sciences majors intending to apply to medical school should contact the chairperson of the department or the premed advisor for additional information concerning sequence of courses.

Total Credit Hours: 122

**Pre-optometry Concentration in Health Sciences**

## General Information

The Pre-optometry program offered by the College of Arts and Sciences is an accelerated track of the Health Sciences major that provides an opportunity for qualified students to prepare for early admission to the New England College of Optometry (NECO) in Boston through our articulation agreement. In addition, students who successfully complete their first year at NECO will have the option of receiving a B.S. in Health Sciences from Western New England University (WNE).

To successfully satisfy the requirements of the Western New England University Pre-Optometry program, a student must:

- Complete the required 101 credits within three academic years as listed below for each fall and spring semester.
- Transfer in no credits (including AP credits) of science coursework completed prior to matriculation at Western New England University and, following matriculation, transfer in no credits for any science or mathematics courses satisfying a requirement for the Pre-Optometry program.
- Maintain a sufficiently high GPA for all Pre-Optometry course work with no grade in any course less than a "C". (See below for the specific GPA requirements for NECO.)

Entry points into the program:

1. Qualified students can be admitted into the Pre-Optometry program as freshmen by WNE Admissions for the fall semester of a given year.

2. Students that have followed the course sequence of the Pre-Optometry program at WNE during their freshman year can apply to the WNE Pre-Optometry advisor prior to October 1st in the fall semester of the sophomore year for official admittance into the program. To be eligible:

- a student must have shadowed the Pre-Optometry program during their first year at WNE and earned a 3.3 Overall GPA with a Science/Math GPA of 3.1 for all course work with no grade in any course less than a "C".
- a student must not have transferred in credits (including AP credits) of science coursework completed prior to matriculation at Western New England University and, following matriculation, transferred in no credits for any science or mathematics courses satisfying a requirement for the Pre-Optometry program.
- if accepted into the program, a student has to complete the required 101 credits of the Pre-Optometry program during their second and third year at WNE while maintaining a sufficiently high GPA for all Pre-Optometry course work with no grade in any course less than a "C".

**Agreement with NECO:**

Students who have successfully completed the Western New England University Pre-Optometry program requirements can be considered for early admission to the four-year optometry program (OD04) of the New England College of Optometry in Boston, which leads to the Doctor of Optometry degree.

Third-year students (juniors) of Western New England University will receive early admissions status to NECO's OD04 program under the agreement once they have:

1. Completed at least three (3) years of coursework as outlined below.
2. Met the academic prerequisites for NECO admission in place at the time of their formal admission into this WNE Pre-Optometry program.
3. Adhered to the current admission standards of NECO (refer to the NECO web site for current standards).
4. Earned an overall cumulative undergraduate GPA of 3.3 and a science/math undergraduate GPA of 3.1 at the time of matriculation at NECO.
5. Completed the Optometry Centralized Application Service (OptomCAS) application by October 15 prior to the intended fall entrance date.
6. Taken the Optometry Admission Test (OAT) by September prior to the intended fall entrance date.
7. Received a 320 or above for the Academic Average on the Optometry Admission Test (OAT) with no OAT sub-score below 290.
8. Demonstrated strong evidence of commitment to the field of optometry through a shadowing experience with a practicing optometrist (details provided on the NECO's website and related literature).
9. Obtained three letters of recommendation from faculty and the optometrist who was shadowed.

10. Interviewed successfully (by NECO standards, as detailed on the NECO websites) with NECO faculty prior to receiving a final admissions decision.

Note: NECO reserves the right, at their sole discretion, to withdraw or reverse an admit status for any Western New England University 3+4 student who, subsequent to the offer of admissions, fails to remain in good academic and disciplinary standing.

In order to receive the B.S. in Health Sciences from Western New England University, students must provide WNE with the NECO transcript after successful completion of the first year of the OD04 program.

If a student has been admitted into the WNE Pre-Optometry program, and then decides to first complete the B.S. in Health Sciences at WNE before moving on to NECO, NECO will still give that student's application special consideration.

**Physical and Biological Science Faculty (p. 33)**

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

**Degree Requirements**

**Freshman Year - Fall Semester**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 17**

**Freshman Year - Spring Semester**

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
PSY 101	Introduction to Psychology	3 cr.

**Subtotal: 17**

**Sophomore Year - Fall Semester**

PSY 201	Developmental Psychology	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
MATH 121	Introductory Probability and Statistics	3 cr.

CS 131	Computing for the Arts and Sciences	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.

**Subtotal: 17**

**Sophomore Year - Spring Semester**

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CUL 2XX	Cultural Studies	3 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.
PH 208	Ethics	3 cr.
POSC 102	American National Government	3 cr.

**Subtotal: 17**

**Junior Year - Fall Semester**

BIO 306	Genetics	4 cr.
BIO 215	Anatomy and Physiology I	4 cr.
ART XXX	Aesthetic Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17**

**Junior Year - Spring Semester**

BIO 216	Anatomy and Physiology II	4 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
PSY 326	Abnormal Psychology	3 cr.
BIO 203	Microbiology	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

\*Two of the above courses must meet WIC requirement, plus two LBC experiences.

Total Credit Hours: 101

**History Major**

**General Information**

The study of history provides students with insight into the political, social, economic, and cultural forces that have shaped the modern world. The History program is designed to give students an introduction to world civilizations and to the history of the United States. Course offerings and distribution requirements ensure breadth of study by providing exposure to non-Western history as well as advanced courses in American and European history.

**Career Opportunities**

Students who major in History can pursue a variety of careers. Our graduates have become teachers, researchers, and journalists. They work in libraries and government agencies including the diplomatic service. Others have found opportunities in business where the skills

gained in the study of history (research, analysis, and writing) are valued. Many graduates attend law school or have pursued advanced degrees in history.

### History and Political Science Faculty (p. 33)

Professors: John Anzalotti, John Seung-Ho Baick, Marc Dawson, Theodore South

Associate Professors: Jonathan Beagle, Meri Clark, Catherine Plum

### Program Objectives

1. To provide students with a breadth of knowledge of the development of world civilizations.
2. To give a solid introduction to the history of the United States.
3. To expose students at an advanced level to the histories of Europe, the United States, and non-Western countries.
4. To give students the research skills to work with primary and secondary sources.
5. To give students the ability to construct and write a coherent, logical, and grammatical argument.
6. To develop critical reading skills.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

## Degree Requirements

### Required Courses (19 credit hours)

HIST 111	United States History to 1877	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.
HIST 205	World History, Prehistory-1500CE	3 cr.
HIST 206	World History, 1500CE-Present	3 cr.
HIST 289	Sophomore Methods Seminar	3 cr.
HIST 490	Junior and Senior Seminar in History	3 cr.

**Subtotal: 19**

Twenty-one credit hours of history of which at least 12 credit hours must be at the 300-level.

These 21 hours must include at least six hours each of courses in non-Western, European, and American history.

**Subtotal: 21**

Eighteen additional credit hours in social sciences including at least three credit hours each of economics, Geography 101, political science, sociology, or psychology.

**Subtotal: 18**

Subtotal: 58

The 2.0 required grade point average in the major is based upon all HIST courses pursued as a part of the student's degree program.

Total Credit Hours: 58

## History Suggested Sequence of Courses

The schedule of courses below is a sample sequence for a history major. Many students become history majors in their sophomore year and fulfill the major requirements without academic sacrifice.

### Degree Requirements

#### Freshman Year- Fall Semester

HIST 205	World History, Prehistory-1500CE	3 cr.
HIST 111	United States History to 1877	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.

**Subtotal: 14**

#### Freshman Year - Spring Semester

HIST 206	World History, 1500CE-Present	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.
MATH XXX	Mathematics Elective	3 cr.
GEN XXX	General Elective	3 cr.
ENGL 133	English Composition II	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

#### Sophomore Year - Fall Semester

POSC 102	American National Government	3 cr.
EC 111	Principles of Microeconomics	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
CUL 2XX	Cultural Studies	3 cr.
HIST 289	Sophomore Methods Seminar	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

#### Sophomore Year - Spring Semester

SO 101	Introduction to Sociology	3 cr.
CS 13X	Computer Competence	3 cr.
PSY 101	Introduction to Psychology	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

#### Junior Year - Fall Semester

PH XXX	Ethical Perspective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.

ART XXX	Aesthetic Perspective	3 cr.
GEOG 101	World Geography	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.
GEN XXX	General Elective	3 cr.
XXX HIST	History Elective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

HIST 3XX	Upper Level History Elective	3 cr.
HIST 3XX	Upper Level History Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

HIST 3XX	Upper Level History Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
HIST 490	Junior and Senior Seminar in History	3 cr.

**Subtotal: 16**

\*Two courses must be designated as writing intensive courses.

Total Credit Hours: 122

**Information Technology Major**

**General Information**

The Information Technology major, which leads to a Bachelor of Science degree, prepares students to be able to identify and employ the information technology and methodologies required to help an organization meet its goals. Students are prepared to understand and meet the technology needs of users in an organization while being able to select, apply, integrate and administer computing technologies within the organization. Students are prepared to advocate for the users as well as to administer computer systems, manage networks of computers, design and develop web pages, and develop network and system security strategies for an organization. Due to the rapid rate of change in technology, students are equipped to understand and manage the information technology resources of an organization in an environment of change as new technologies emerge. Students will gain hands-on experience with a range of information technologies. An internship is required to provide students with an understanding of how information technology is used in the real world.

**Opportunities**

Graduates in information technology develop the knowledge and understanding required of IT professionals and are prepared to go on to advanced study or to enter various information technology fields. Graduates are in high demand and are well equipped to enter careers in system administration, web design and development, network administration, and network security

**Computer Science and Information Technology Faculty (p. 32)**

Professors: Heidi Ellis, Lisa Hansen

Associate Professor: Herman Lee Jackson II

Professional Educator: John Willemain

**Educational Objectives**

The Information Technology program will prepare students to be professionals capable of applying principles to practice, able to undertake lifelong learning, and aware of social, ethical, and environmental issues associated with their professional activities. The expected accomplishments of our graduates during the first several years following graduation from the program are to:

1. successfully apply principles and practices of computing to design and maintain systems that meet customer need and support user needs;
2. function ethically and responsibly as a full participant in the computing discipline;
3. remain current in the fast-changing world of technology today by pursuing lifelong learning;
4. operate successfully as part of a team; and
5. apply knowledge and skills to the benefit of society.

**Program Outcomes**

Upon completion of the program, the student will have the following abilities:

- Communication – Ability to communicate ideas and concepts in written and oral forms clearly and in an organized manner.
- Mathematical Foundations - Ability to apply knowledge of computing and mathematical concepts and theory to develop and analyze computing systems.
- Teamwork – Ability to work in teams.
- Design – Ability to apply system design process and notation in order to design systems.
- Critical Thinking – Ability to reason logically and evaluate and analyze a computer-based system, process, component or program to meet desired needs.
- Ethics – Ability to identify the role computers play in society and identify and analyze ethical impacts of professional behavior and actions.
- Information Literacy – Ability to identify and utilize appropriate information sources in order to understand and/or solve problems.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

Required information technology courses (27 credit hours)

CS 101/IT 101	Introduction to Computing	4 cr.
IT 102/CS 102	Introduction to Programming	4 cr.
CS 200/IT 200	Data Structures	4 cr.
IT 230	Introduction to Operating Systems and Script Development	3 cr.
IT 240/BIS 210	Foundations of Web Systems	3 cr.
IT 250/BIS 413	Data Communications and Networks	3 cr.
IT 320	Foundations of Human Computer Interaction	3 cr.
	And	
IT 300/BIS 321	Database Management Systems	3 cr.
	or	
CS 364	Design of Database Mgt Systems	3 cr.

**Subtotal: 27**

Required mathematics courses (six additional credit hours)

MATH 120	Intro Statistics for the Arts & Sci	3 cr.
MATH 150	Applied Discrete Mathematics	3 cr.

**Subtotal: 6**

Science courses (six credit hours)

**Subtotal: 6**

Technical Elective (six credit hours).

Two additional information technology or computer science courses numbered 300 or above.

**Subtotal: 6**

Internship (three credit hours)

IT 480	Internship in Information Technology	3 cr.
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**Subtotal: 3**

In addition to the required courses, students must complete two concentration areas taking two courses for each of their chosen concentrations and an additional course in a third concentration area. See Information Technology Concentrations (p. 76).

Total Credit Hours: 48

**Information Technology Concentrations****Degree Requirements****Area I - System Administration:**

IT 310	System Operation and Administration	3 cr.
IT 410	Advanced Topics in System Administration	3 cr.

**Area 2 - Network Security:**

IT 330	Network Security Concepts	3 cr.
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IT 430	Advanced Topics in Network Security	3 cr.
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**Area 3 - Web Design and Development:**

IT 350	Web Systems Development	3 cr.
IT 450	Advanced Topics in Web Design and Development	3 cr.

**Area 4 - Network Administration:**

IT 360	Network Management and Operations	3 cr.
IT 460	Advanced Topics in Network Administration	3 cr.

**Information Technology Suggested Sequence of Courses****Degree Requirements****Freshman Year- Fall Semester**

CS 101/IT 101	Introduction to Computing	4 cr.
GEN XXX	General Elective	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16****Freshman Year - Spring Semester**

IT 102/CS 102	Introduction to Programming	4 cr.
MATH 150	Applied Discrete Mathematics	3 cr.
ENGL 133	English Composition II	3 cr.
GEN XXX	General Electives	6 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 17****Sophomore Year - Fall Semester**

IT 200/CS 200	Data Structures	4 cr.
IT 230	Introduction to Operating Systems and Script Development	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.

**Subtotal: 16****Sophomore Year - Spring Semester**

IT 240/BIS 210	Foundations of Web Systems	3 cr.
IT 250/BIS 413	Data Communications and Networks	3 cr.
ART XXX	Aesthetic Perspective	3 cr.

LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

IT 3XX	IT Concentration Area 1	3 cr.
IT 3XX	IT Concentration area 2	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
IT 300/BIS 321	Database Management Systems	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

IT 4XX	IT Concentration area 1	3 cr.
IT 4XX	IT Concentration area 2	3 cr.
PH XXX	Ethical Perspective	3 cr.
LAB XXX	Laboratory Science Requirement	3-4 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
		<b>Subtotal: 15-16</b>

**Senior Year - Fall Semester**

IT 320	Foundations of Human Computer Interaction	3 cr.
ITCS 3XX/4XX	IT Electives	3 cr.
GEN 3XX	General Electives	9 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

IT XXX	IT Concentration area 3	3 cr.
ITCS 3XX/4XX	IT Electives	3 cr.
IT 480	Internship in Information Technology	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	2 cr.
		<b>Subtotal: 14</b>

Note: Initially, the IT program will be offering only four areas of concentration.

Total Credit Hours: 123-124

**Integrated Liberal Studies Major**

**General Information**

The Integrated Liberal Studies program provides the opportunity to construct an individualized major. Such a program combines a selection of interrelated courses from two or more disciplines according to the interests and goals of the student.

Students must request permission and guidance from each department in which they propose to do a substantial part of the work. Final

approval of such a program rests with the Dean of the College of Arts and Sciences upon recommendation of those departments concerned. No request for an Integrated Liberal Studies major will be considered earlier than the end of the freshman year or later than the beginning of the senior year.

**Career Opportunities**

This program permits students to pursue goals, which are not addressed in a regular major program. Past majors have found jobs in animal science, publishing, and pharmaceutical sales.

**Faculty**

Faculty in this major are drawn from disciplines throughout the University.

**Program Objectives**

1. To allow students to construct a major.
2. To gather courses from at least two major departments.
3. To lead students to define educational goals.
4. To bring the students into planning their own education.
5. To lead students to find elements in disciplines that reinforce each other.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

Non-Business majors can apply no more than 25% of business coursework to their graduation requirements.

Minimum requirements for an integrated liberal studies major:

A minimum of 36 credit hours drawn from at least two disciplines, 18 hours in each discipline. At least 30 (15 hours in each) of these shall be courses at the 300-400 level.

**Suggested Sequence of Courses**

The assistant dean of Arts and Sciences serves as the advisor to students in this major. Each student's four-year sequence is dependent upon the courses of study selected.

**International Studies Major**

**General Information**

International Studies aims to educate global citizens. The major promotes global understanding and lifelong learning through an international, intercultural, and interdisciplinary curriculum. It is designed to foster understanding of world societies and global issues from varied disciplinary perspectives, including cultural diversity and norms, economic interconnectedness, conflict and war, environmental degradation, human rights violations and solutions. Students learn the communication, research, and critical thinking skills necessary to assess cultural, economic, political, and social systems in a global context. Majors learn to understand and communicate with diverse communities at home and abroad, a foundation of work and life in the twenty-first century, by studying complex international issues, including the dynamic global economy and the expectations of global citizenship.

International Studies majors shape their own course of study from a curriculum that balances depth and breadth of international and regionally comparative courses in different academic specializations.

Majors are encouraged to choose a relevant minor to focus their course of study. Majors are encouraged to study abroad or to pursue international or globally related internships and service learning opportunities. International Studies advances awareness of global issues on campus by promoting participation in student organizations that support international understanding and diversity education, especially the Model United Nations and United and Mutually Equal.

### Career and Community Opportunities

International Studies prepares students to participate creatively in a global exchange of ideas and to be successful in a dynamic global economy. The major opens a wide variety of career paths, ranging from public service, diplomacy, management, and communications to the arts, community service, entrepreneurship, health care support, and teaching. It prepares interested students for a variety of graduate programs, including those in international affairs, law, business, and public policy. The major helps students meet the challenges of the global economy by requiring at least twelve credits of foreign language(s). The major also encourages studying, volunteering, and interning abroad to sharpen students' critical thinking and communication skills, which most employers consider fundamental in the twenty-first century economy.

### Faculty

In this multidisciplinary major, students will learn from faculty in many disciplines from throughout the University.

### Program Objectives

1. To provide students with breadth of knowledge of cultural, economic, political, and social systems in a global context.
2. To provide students with analytical tools to explain complex global issues in different disciplines.
3. To expose students at an advanced level to different disciplinary perspectives on global issues and international context.
4. To acquire proficiency in a language or languages other than one's own.
5. To gain awareness of the connection between global problems and global citizenship, particularly, but not necessarily, through international study, internships, or service learning, or through globally related internships, service learning, or domestic academic exchange.
6. To develop skills in critical reading, research, argumentation, and presentation.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34). International Studies majors are encouraged to fulfill General University Requirements with courses that have international, global, or comparative focus.

For example, the major recommends all Cultures courses and such Integrated Liberal and Professional Perspective courses as:

ILP 210  
ILP 230  
ILP 236  
ILP 238  
ILP 250

## Degree Requirements

### Group A: Core courses required (15 credit hours):

GEOG 102	World Regional Geography I: Highly Developed Countries	3 cr.
	or	
GEOG 103	World Regional Geography II: Less Developed Countries	3 cr.
HIST 206	World History, 1500CE-Present	3 cr.
INST 101/POSC 101	Introduction to Contemporary Global Issues	3 cr.
POSC 203	International Relations	3 cr.
INST 490	Seminar in International Studies	3 cr.

**Subtotal: 15**

### Group B: Choose at least four courses; these cannot also count as Core courses (12 credit hours):

ART 212/HIST 212  
ART 202  
CJ 260  
EC 111  
EC 112  
\*ENGL 215  
GEOG 102  
GEOG 103  
HIST 133  
HIST 171  
HIST 212/ART 212  
HIST 261  
INST 100  
INST 190  
INST 290  
INTB 251  
LSOC 203  
LSOC 230/POSC 230  
MUS 240  
PH 120  
PH 230  
PH 240  
POSC 201  
POSC 2XX  
REL 220  
REL 221

**Subtotal: 12**

### Group C: Choose at least seven courses; note any prerequisites (21 credit hours):

COMM 348  
COMM 356  
EC 315  
EC 321  
EC 371  
EC 372  
EC 3XX  
EC 39X  
\*ENGL 336  
\*ENGL 341  
\*ENGL 343  
\*ENGL 376  
ENTR 380  
FILM 312

FIN 322  
 HIST 320  
 HIST 332  
 HIST 341  
 HIST 343  
 HIST 345  
 HIST 346  
 HIST 348  
 HIST 372  
 HIST 373  
 HIST 374/INST 374  
 HIST 375  
 HIST 380  
 HIST 39X (topics vary; INTLS Dir. approval)  
 \*HIST 490 (topics vary; INTLS Dir. approval)  
 INST 390  
 INST 480  
 LSOC 344  
 MAN 311  
 MK 311  
 PH 316  
 POSC 310  
 POSC 312  
 POSC 316  
 POSC 318  
 POSC 340  
 \*POSC 345  
 POSC 346  
 POSC 350  
 POSC 355  
 POSC 39X (topics vary; INTLS Dir. approval)  
 POSC 490 (topics vary; INTLS Dir. approval)  
 SPMN 420

\*Fulfills Writing Intensive Requirement. Two courses must be designated as writing intensive.

**Subtotal: 21**

**Foreign Languages requirement (12 crs)**

At least 12 credits (four semesters) of a foreign language or languages are required. A student may earn exemption from up to two semesters of a foreign language and up to two semesters of a different native language other than English. Exemptions may be earned through a proficiency test administered and/or approved by an appropriate University faculty member or the Director of International Studies.

Students who earn the maximum language exemption will be required to take one course from Group C above. The remaining credits will become general electives.

**Subtotal: 12**

Total Credit Hours: 60

**International Studies Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
INST 101/POSC 101	Introduction to Contemporary Global Issues	3 cr.

LA 100	First Year Seminar	2 cr.
LANG XXX	First Semester Foreign Language	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 15</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
GEOG 103	World Regional Geography II: Less Developed Countries	3 cr.
HIST 206	World History, 1500CE-Present	3 cr.
LANG XXX	First Semester Foreign Language	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

INST 1-2XX	See INST Curriculum List	3 cr.
INST 1-2XX	See INST Curriculum List	3 cr.
LAB XXX	Laboratory Science Requirement	4 cr.
PH 1-2XX	See INST Curriculum List	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Spring Semester**

CS XXX	Computer Competence Requirement	3 cr.
INST XXX	See INST Curriculum List	3 cr.
INST XXX	See INST Curriculum List	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
POSC 203	International Relations	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester (Study Abroad Encouraged)**

ART/FILM/MUS/THTR XXX	See INST Curriculum List	3 cr.
INST 3XX	See INST Curriculum List	3 cr.
INST 3XX	See INST Curriculum List	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LANG XXX	Foreign Language	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester (Study Abroad Encouraged)**

CUL XXX	Cultural Studies Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

INST 3XX	See INST Curriculum List	3 cr.
LANG XXX	Foreign Language	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

GEN 3XX	General Elective	3 cr.
GEN 3XX	General Elective	3 cr.
INST 3XX	See INST Curriculum List	3 cr.
INST 3XX	See INST Curriculum List	3 cr.
WIC 3XX	Writing Intensive Course	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
INST 3XX	See INST Curriculum List	3 cr.
INST 490	Seminar in International Studies	3 cr.
		<b>Subtotal: 15</b>

\*Two courses must be designated as writing intensive courses.

Total Credit Hours: 122

**Law and Society Major****General Information**

The Law and Society major is a course of study for the liberal arts student who is interested in studying the origins, actors, institutional frameworks, cultural development, and theoretical foundations of law and justice as they relate to society. The study of law and society draws from the insights and tools of academic disciplines like history, political science, philosophy, sociology, economics, and related social sciences, to illuminate the development and practice of law and jurisprudence through a variety of legal traditions. This major looks at law, broadly construed, and legal actors and institutions in a wide variety of contexts: domestic (i.e., United States), foreign, and international.

This is an interdisciplinary major, so students in this program are not confined to learning about law through the narrow prism of one particular discipline. The goal of the program is to allow students the freedom to sample from a wide variety of courses and instructors and to pursue specific interests within a broad organizing framework — the law.

**Career Opportunities**

The goal of the program is to produce students who can think clearly and dissect and analyze arguments critically. The multidisciplinary approach exposes students to a great variety of human behaviors and institutions. The law and society major is not designed to be the only path for preparing students for law school, nor does it provide paralegal training, but many students who plan to attend law school may benefit from and enjoy this major as a field of study. The broadly based education offered by this major is an excellent preparation for careers in law, education, government, business, and international affairs.

**History and Political Science Faculty (p. 33)****Program Objectives**

1. Understand law in its various theoretical, institutional, and historical forms and as it exists in practice.
2. Consider how various historical, social, economic, and political contexts shape the construction, mobilization, and interpretation of law.
3. Develop an appreciation for international law and for non-Western legal traditions from the Middle East, Sub-Saharan Africa, South Asia, and East Asia.
4. Understand the comparative development and practice of constitutional law in the United States and other societies.
5. Perceive the dynamic relationship between law, society, and politics on a local, national, and international level.
6. Understand the development and dynamics of legal institutions and practices in the United States and elsewhere in an increasingly globalizing world.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements****Required law and society courses (33 credit hours)**

LSOC 101	Introduction to Law and Society	3 cr.
LSOC 203	Theories of Justice	3 cr.
POSC 102	American National Government	3 cr.
POSC 201	Comparative Politics	3 cr.
POSC 207	Western Political Thought	3 cr.
POSC 225	Law and Judicial Politics	3 cr.
POSC 325	Constitutional Law	3 cr.
	or	
POSC 326	Civil Liberties	3 cr.
POSC 340	International Law and Organization	3 cr.
	or	
POSC 345	International Human Rights	3 cr.
LSOC 344	Comparative Legal Systems	3 cr.
SO 413	Social Inequality	3 cr.
LSOC 490	Senior Seminar in Law and Society	3 cr.

**Subtotal: 33**

The major will require that the student select five courses (15 credits) from the following:

BL 201/HONB 201	Introduction to Business Law	3 cr.
CJ 230	Criminal Law	3 cr.
CJ 234	The Judicial Process	3 cr.
CJ 342/SO 342	Juvenile Delinquency	3 cr.

EC 105	The Economics of Crime	3 cr.
ENGL 366	Crime and Punishment	3 cr.
HIST 336	Early American Republic	3 cr.
ILP 253	Justice Then and Now	3 cr.
LSOC 202	The Literature of the Law	3 cr.
LSOC 206	Legal Justice and Social Justice	3 cr.
LSOC 230/ POSC 230	When Cultures Collide	3 cr.
SO 208	Gender	3 cr.
SO 211	Race and Ethnicity	3 cr.
SO 214	Drugs, Society, & The CJ System	3 cr.
SO 309	Deviance	3 cr.
SW 204	Social Work and Criminal Justice	3 cr.

**Subtotal: 15**

The student will also be required to take courses outside the major as follows:

EC 111	Principles of Microeconomics	3 cr.
SO 101	Introduction to Sociology	3 cr.

**Subtotal: 6**

Total Credit Hours: 54

### Law and Society Suggested Sequence of Courses

#### Degree Requirements

##### Freshman Year- Fall Semester

LSOC 101	Introduction to Law and Society	3 cr.
SO 101	Introduction to Sociology	3 cr.
	or	
POSC 102	American National Government	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

##### Freshman Year - Spring Semester

LSOC 203	Theories of Justice	3 cr.
SO 101	Introduction to Sociology	3 cr.
	or	
POSC 102	American National Government	3 cr.
ENGL 133	English Composition II	3 cr.
MATH XXX	Mathematical Analysis	3 cr.
HIST XXX	Historical Perspective	3 cr.

PEHR 153-199	Lifetime Activity	1 cr.
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**Subtotal: 16**

##### Sophomore Year - Fall Semester

LAB XXX	Laboratory Science Requirement	3 cr.
POSC 225	Law and Judicial Politics	3 cr.
EC 111	Principles of Microeconomics	3 cr.
POSC 201	Comparative Politics	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

##### Sophomore Year - Spring Semester

POSC 207	Western Political Thought	3 cr.
XXX	Major Elective	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
	or	
CS 13X	Computer Competence	3 cr.
XXX	Major Elective	3 cr.
GEN XXX	General Electives	6-9 cr.

**Subtotal: 15**

##### Junior Year - Fall Semester

POSC 325	Constitutional Law	3 cr.
	or	
POSC 326	Civil Liberties	3 cr.
CS 13X	Computer Competence	3 cr.
	or	
LAB/NSP XXX	Lab Science or Natural Sci Persp.	3 cr.
XXX	Major Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

##### Junior Year - Spring Semester

POSC 340	International Law and Organization	3 cr.
	or	
POSC 345	International Human Rights	3 cr.
XXX	Major Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.

**Subtotal: 15**

##### Senior Year - Fall Semester

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.

XXX	Major Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.
SO 413	Social Inequality	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

LSOC 344	Comparative Legal Systems	3 cr.
LSOC 490	Senior Seminar in Law and Society	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

\*Two courses must be designated as writing intensive courses.

Total Credit Hours: 122

**Liberal Studies Major****General Information**

The liberal studies programs are open only to part-time students (no more than 11 credits per semester).

**Program Objectives**

1. To provide a wide array of courses.
2. To present a well balanced program of courses.
3. To frame (for the associate's degree) a realistic, near-term goal.
4. To allow students to make maximum use of courses taken.

**Associate of Arts in Liberal Studies**

The Associate of Arts in Liberal Studies is particularly appropriate for nontraditional students who are entering or reentering college after a long pause in their formal education. The two-year degree may be designed by the student, with the assistance of an academic advisor, to serve as a career development tool as well as preparation for upper-level study in a four-year degree program.

**Bachelor of Arts in Liberal Studies**

The Bachelor of Arts in Liberal Studies satisfies the broad interests of older students who wish to further their formal education without reference to specific career preparation or as preparation for graduate study. Advisors can give more information and guidance on this flexible degree option.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

Non-business majors can apply no more than 25% of business coursework to their graduation requirements.

Candidates for the Bachelor of Arts in Liberal Studies must meet all general requirements of the University and area requirements of the College of Arts and Sciences.

**Degree Requirements**

Associate of Arts in Liberal Studies - Course of Study (60 credit hours)

xxx	Freshman English	6 cr.
WIC XXX	Writing Intensive course	3 cr.
xxx	Humanities	9 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
xxx	Mathematics	3 cr.
xxx	Mathematics or Computer	3 cr.
xxx	Social Sciences	12 cr.
GEN XXX	General Electives	21 cr.
		<b>Subtotal: 60</b>

Bachelor of Arts in Liberal Studies - Course of Study (120 credit hours)

xxx	Computer course	3 cr.
xxx	Freshman English	6 cr.
WIC XXX	Writing Intensive course	6 cr.
xxx	Humanities	24 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
LAB XXX	Laboratory Science	3 cr.
xxx	Mathematics	6 cr.
xxx	Social Sciences	30 cr.
GEN XXX	General Electives	39 cr.
		<b>Subtotal: 120</b>

Humanities: 9 credit hours at 300-400 level

Social Sciences: 9 credit hours at 300-400 level

General Electives: 12 credit hours at 300-400 level

Subtotal: 120

Total credit hours required for graduation: 120.

Total Credit Hours: 120

**Mathematical Sciences Major****General Information**

The primary goals of the Mathematical Sciences curriculum are to offer general training in mathematical reasoning and to develop mastery of mathematical tools needed for a lifelong series of different jobs and continuing education. Much emphasis is placed on the theory of problem-solving and nurturing such abilities as intuition, inductive and deductive reasoning, and model building.

The student is also made aware of the power and elegance of mathematical truth through careful analysis of axiomatic systems and mathematical theories. Throughout the undergraduate program students are encouraged to formulate their own problems and conjectures, thus challenging their own ability to cope with the mathematical literature.

In fostering these goals the Mathematical Sciences curriculum provides grounding in the traditional areas of theoretical mathematics. It also allows student the flexibility of choosing elective courses based on future career or graduate school goals: pure mathematics, applied mathematics, probability and statistics, or teacher's preparation.

In seminars, independent study courses, and internships the student is encouraged to formulate and carry out research projects, working creatively with the literature in either pure, applied mathematics or mathematics education. In the senior year students work individually with a faculty member on their self-selected senior project, which culminates in a research paper and a presentation, usually at the Hudson River Undergraduate Mathematics Conference.

The programs lead to a Bachelor of Science degree in the Mathematical Sciences, including if pursuing the teacher preparation-secondary school major, or a Bachelor of Arts degree in Mathematics, if pursuing the teacher preparation-elementary major. The programs have been patterned to follow the recommendations of the Committee on Undergraduate Programming in Mathematics of the Mathematical Association of America.

**Program Objectives**

The Mathematical Sciences curriculum provides instruction and support for students in achieving the following objectives. It is our purpose that our students:

- 1) Learn mathematical habits of mind
  - a. Correctly apply inductive and deductive reasoning skills.
  - b. Demonstrate correct use of formal mathematical language and ability to compose a mathematical proof.
  - c. Demonstrate the ability to successfully apply mathematical computations and algorithms.
  - d. Demonstrate the ability to do mathematical work independently, and to go beyond the content level of standard coursework.
- 2) Demonstrate fluency in mathematical communication.
  - a. Write about mathematics correctly and in a clear manner.
  - b. Communicate mathematics orally in a clear manner.
- 3) Use technology relevant to mathematics.
  - a. Use technology to solve mathematical problems.
  - b. Use technology to communicate mathematics effectively.

**Career Opportunities**

Graduates in mathematics develop the type of creative thinking and problem-solving abilities required of professional mathematicians. As a consequence, they are well prepared to complete advanced study or pursue a wide variety of employment opportunities in industry, commerce, or the public sector. Graduates have secured positions in the areas of actuarial science, finance, operations research, computer programming, statistics, systems analysis, software engineering, and teaching. Others have received fellowships to pursue graduate study in mathematics or related areas.

**Mathematics Faculty** (p. 33)

**Degree Requirements**

Required mathematics and other courses (36 credit hours)

for the Bachelor of Science degree in the Mathematical Sciences:

CS 170	Technology in Mathematics	3 cr.
CS 171	Programming for Mathematics	4 cr.
MATH 133	Calculus I	4 cr.
MATH 134	Calculus II	4 cr.
MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.
MATH 306	Linear Algebra	3 cr.
MATH 418	Introduction to Modern Algebra	3 cr.
MATH 421	Real Analysis	3 cr.
MATH 451	Senior Project I	1 cr.
MATH 452	Senior Project II	2 cr.

**Subtotal: 36**

In addition, the student must take 12 credit hours (four courses) of mathematics electives selected from 300- and 400-level MATH courses.

**Teacher Preparation-Secondary School**

If pursuing the Teacher Preparation-Secondary School major, 12 additional credit hours as follows:

MATH 121	Introductory Probability and Statistics	3 cr.
	or	
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
MATH 375	Creative Problem Solving	3 cr.
MATH 377	Elementary Number Theory	3 cr.

**Subtotal: 12**

**To satisfy the science core requirements**

Either BIO 107, BIO 108 with BIO 117, BIO 118, CHEM 105, CHEM 106, or PHYS 133, PHYS 134 must be taken to satisfy the science core requirements. (PHYS 133, PHYS 134 is recommended.)

BIO 107	General Biology I	3 cr.
BIO 108	General Biology II	3 cr.
	with	
BIO 117	General Biology Laboratory I	1 cr.
BIO 118	General Biology Laboratory II	1 cr.
	or	
CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
	or	

PHYS 133	Mechanics	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 8****Teacher Preparation - Elementary School (40 credits)**

Required mathematics and other courses for the Bachelor of Arts degree in Mathematical Sciences.

CS 170	Technology in Mathematics	3 cr.
MATH 107	Mathematics For Elementary Education I	3 cr.
MATH 108	Mathematics for Elementary Education II	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
	or	
MATH 121	Introductory Probability and Statistics	3 cr.
MATH 133	Calculus I	4 cr.
MATH 134	Calculus II	4 cr.
MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.
MATH 306	Linear Algebra	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
MATH 377	Elementary Number Theory	3 cr.
MATH 451	Senior Project I	1 cr.
MATH 452	Senior Project II	2 cr.

**Subtotal: 40**

Note: Concurrent completion of the Elementary Education major, which yields a Bachelor of Arts Degree in Elementary Education, is required for the Teacher Preparation - Elementary School major.

The typical course schedule for the Bachelor of Science degree in the Mathematical Sciences would be constructed from what follows.

**Bachelor of Science in the Mathematical Sciences Suggested Sequence of Courses****Degree Requirements****Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
MATH 133	Calculus I	4 cr.
LA 100	First Year Seminar	2 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
BIO 107	General Biology I	3 cr.
	And	
BIO 117	General Biology Laboratory I	1 cr.

	or	
CHEM 105	General Chemistry I	4 cr.

or

PHYS 133	Mechanics	4 cr.
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**Subtotal: 17****Freshman Year - Spring Semester**

CS 170	Technology in Mathematics	3 cr.
ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
PH 204	Symbolic Logic	3 cr.
BIO 108	General Biology II	3 cr.
	And	
BIO 118	General Biology Laboratory II	1 cr.
	or	
CHEM 106	General Chemistry II	4 cr.
	or	
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 17****Sophomore Year - Fall Semester**

MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
SBP XXX	PSY/SO/EC/POSC/HIST/CJ/ED	3 cr.
MATH 306	Linear Algebra	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16****Sophomore Year - Spring Semester**

MATH XXX	Mathematics Elective	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.
CS 171	Programming for Mathematics	4 cr.
WIC 2XX	Writing Intensive Course	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 16****Junior Year - Fall Semester**

MATH XXX	Mathematics Elective	3 cr.
MATH XXX	Mathematics Elective	3 cr.
MATH 418	Introduction to Modern Algebra	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
PH XXX	Ethical Perspective	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

MATH 421	Real Analysis	3 cr.
MATH XXX	Mathematics Electives	3-6 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Electives	3-6 cr.
		<b>Subtotal: 15</b>

Senior Year - Fall Semester

MATH 451	Senior Project I	1 cr.
MATH XXX	Mathematics Electives	6 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
GEN XXX	General Electives	6 cr.
		<b>Subtotal: 16</b>

Senior Year - Spring Semester

MATH 452	Senior Project II	2 cr.
MATH XXX	Mathematics Electives	6 cr.
GEN XXX	General Electives	6 cr.
		<b>Subtotal: 14</b>

Subtotal: 126

Note: The General University Requirements in Aesthetics and Cultural Studies can be satisfied by taking a single course that has a designation of fulfilling both requirements.

Total Credit Hours: 122

**Bachelor of Science in the Mathematical Sciences, Teacher Preparation - Secondary School, Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
MATH 133	Calculus I	4 cr.
HIST XXX	Historical Perspective	3 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.
BIO 107	General Biology I	3 cr.
	And	
BIO 117	General Biology Laboratory I	1 cr.
	or	
CHEM 105	General Chemistry I	4 cr.
	or	
PHYS 133	Mechanics	4 cr.
		<b>Subtotal: 17</b>

**Freshman Year - Spring Semester**

CS 170	Technology in Mathematics	3 cr.
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ENGL 133	English Composition II	3 cr.
MATH 134	Calculus II	4 cr.
PH 204	Symbolic Logic	3 cr.
BIO 108	General Biology II	3 cr.
	And	
BIO 118	General Biology Laboratory II	1 cr.
	or	
CHEM 106	General Chemistry II	4 cr.
	or	
PHYS 134	Electricity and Magnetism	4 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

MATH 235	Calculus III	3 cr.
MATH 281	Foundations of Mathematics I	3 cr.
MATH 306	Linear Algebra	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
PSY 101	Introduction to Psychology	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Spring Semester**

MATH 282	Foundations of Mathematics II	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
	or	
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
CS 171	Programming for Mathematics	4 cr.
WIC 2XX	Writing Intensive Course	3 cr.
ED 301	Principles and Problems of Education	3 cr.
ED 120	Introduction to Education	1 cr.
		<b>Subtotal: 17</b>

**Junior Year - Fall Semester**

MATH 418	Introduction to Modern Algebra	3 cr.
MATH XXX	Mathematics Elective	3 cr.
MATH XXX	Mathematics Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

MATH 421	Real Analysis	3 cr.
PSY 304	Educational Psychology	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.

	or		
MATH 377	Elementary Number Theory	3 cr.	
MATH 373	Statistical Modeling	3 cr.	
	or		
ILP XXX	Integrated Liberal Prof Persp.	3 cr.	
ED 270	Teaching English Language Learners II	2 cr.	
MATH 302	MTEL Prep	2 cr.	
			<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

MATH 451	Senior Project I	1 cr.	
ED 380	Secondary Education Topics	1 cr.	
ED 403	Methods of Teaching in Secondary Schools	3 cr.	
ED 409	Practicum in Secondary Teaching	9 cr.	
ED 410	Secondary Practicum Seminar	3 cr.	
			<b>Subtotal: 17</b>

**Senior Year - Spring Semester**

MATH XXX	Mathematics Elective	3 cr.	
MATH 452	Senior Project II	2 cr.	
ILP XXX	Integrated Liberal Professional Perspective	3 cr.	
	or		
MATH 375	Creative Problem Solving	3 cr.	
MATH 377	Elementary Number Theory	3 cr.	
	or		
MATH 371	Modern Aspects of Geometry	3 cr.	
GEN XXX	General Elective	3 cr.	
			<b>Subtotal: 14</b>

Note: the general university requirements in Aesthetics and Cultural Studies can be satisfied by taking a single course that has a designation of fulfilling both requirements.

Total Credit Hours: 129

## **Bachelor of Arts in the Mathematical Sciences, Teacher Preparation-Elementary School Suggested Sequence of Courses**

**Degree Requirements**

The typical course schedule for the Bachelor of Arts degree in the Mathematical Sciences, teacher preparation-elementary school, would be constructed as indicated below.

CS 170	Technology in Mathematics	3 cr.	
MATH 107	Mathematics For Elementary Education I	3 cr.	
MATH 108	Mathematics for Elementary Education II	3 cr.	

MATH 120	Intro Statistics for the Arts & Sciences	3 cr.	
	or		
MATH 121	Introductory Probability and Statistics	3 cr.	
MATH 133	Calculus I	4 cr.	
MATH 134	Calculus II	4 cr.	
MATH 235	Calculus III	3 cr.	
MATH 281	Foundations of Mathematics I	3 cr.	
MATH 282	Foundations of Mathematics II	3 cr.	
MATH 306	Linear Algebra	3 cr.	
MATH 371	Modern Aspects of Geometry	3 cr.	
MATH 377	Elementary Number Theory	3 cr.	
MATH 451	Senior Project I	1 cr.	
MATH 452	Senior Project II	2 cr.	
			<b>Subtotal: 40</b>

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.	
MATH 133	Calculus I	4 cr.	
HIST 111	United States History to 1877	3 cr.	
PSY 101	Introduction to Psychology	3 cr.	
PEHR 151	Personal Health and Wellness	1 cr.	
LA 100	First Year Seminar	2 cr.	
			<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.	
MATH 134	Calculus II	4 cr.	
HIST 206	World History, 1500CE-Present	3 cr.	
POSC 102	American National Government	3 cr.	
CS 170	Technology in Mathematics	3 cr.	
PEHR 163	Games Children Play (Required for Elementary Education Majors)	1 cr.	
			<b>Subtotal: 17</b>

First attempt on Communication and Literacy Skills MTEL is encouraged in Spring Semester.

**Sophomore Year - Fall Semester**

ED 350	Teaching of Elementary Reading and Language Arts	3 cr.	
BIO 103	Life Sciences I	3 cr.	
MATH 235	Calculus III	3 cr.	
MATH 281	Foundations of Mathematics I	3 cr.	
ENGL 339	Children's Literature	3 cr.	
			<b>Subtotal: 16</b>

**Sophomore Year - Spring Semester**

ED 375	Elementary Curriculum and Methods	3 cr.
ED 252	Survey of Geography	1 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
	or	
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
ENGL 260	Literary Horizons	3 cr.
PHYS 105	Basic Physics	3 cr.
MATH 282	Foundations of Mathematics II	3 cr.

**Subtotal: 16**

First attempts on Foundations of Reading and/or Elementary Subject Matter MTEL are encouraged in this year.

**Junior Year - Fall Semester**

PSY 304	Educational Psychology	3 cr.
EC 111	Principles of Microeconomics	3 cr.
HIST 112	United States History, 1878 to the Present	3 cr.
MATH 107	Mathematics For Elementary Education I	3 cr.
MATH 306	Linear Algebra	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

PH XXX	Ethical Perspective	3 cr.
ED 301	Principles and Problems of Education	3 cr.
MATH 371	Modern Aspects of Geometry	3 cr.
	or	
MATH 377	Elementary Number Theory	3 cr.
MATH 108	Mathematics for Elementary Education II	3 cr.
HIST 205	World History, Prehistory-1500CE	3 cr.

**Subtotal: 17**

All MTEL tests must be passed at this point.

**Senior Year - Fall Semester**

ED 425	Elementary Education Topics	3 cr.
ED 479	Elementary Teaching Practicum	9 cr.
ED 480	Elementary Practicum Seminar	3 cr.
MATH 451	Senior Project I	1 cr.

**Subtotal: 16**

**Senior Year - Spring Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
MUS 101	Introduction to Music	3 cr.

MATH 377	Elementary Number Theory	3 cr.
	or	
MATH 371	Modern Aspects of Geometry	3 cr.
MATH 452	Senior Project II	2 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 14**

- \*Requires 25-hour prepracticum classroom experience and journal. Journal topics are related to course. Prepracticum hours must be completed in any sophomore or junior semester, ideally one experience in sophomore year and one experience in junior year.
- Two courses in the curriculum must be designated "Writing Intensive."
- MATH 371 and MATH 377 are offered in alternate spring semesters, so either MATH 371 or MATH 377 will be taken in the spring semester of the junior year, and the other will be taken in the spring semester of the senior year.

Subtotal: 40

Note: Concurrent completion of the Elementary Education major, which yields a Bachelor of Arts Degree in Elementary Education, is required for the Teacher Preparation - Elementary School Track.

Note: the General University Requirements in Aesthetics and Cultural Studies can be satisfied by taking a single course that has a designation (CA) of fulfilling both requirements.

**Neuroscience Major**

**General Information**

Neuroscience is a field of study that integrates psychology, biology, physics, and chemistry for the common goal of understanding the structure, development and function of the brain and nervous system. Through research, neuroscientists are able to describe the normal function of electrical tissue. For example, improving our understanding of the brain allows us to understand and find ways to prevent or treat many devastating neurological and psychiatric disorders. Students majoring in neuroscience will have access to a range of tools including behavioral testing, electrophysiology, histology, and molecular biology, as they participate first-hand in basic exploratory research. Students are involved in all stages of research including project design, data collection and results reporting. This major is housed in a research-rich environment that supports a curriculum steeped in scientific investigation, where students and faculty work as partners in research and education.

**Career Opportunities**

Students who receive an undergraduate degree in Neuroscience typically continue their studies at the masters or doctoral level or pursue advanced degrees in a variety of medical professions (e.g. MD, DDO, DDS, VDM, or OD). Career options include positions within neuroscience, psychiatry, medicine, academia, pharmaceuticals, forensic science, health and allied health professionals, science writing and communications, and state and federal governmental science agencies (e.g. CIA, FBI, NIH, CDC, or FDA).

**Neuroscience Faculty** (p. 33)

### Student Competencies

As an undergraduate neuroscience major, students will study the nervous system, behavior and cognitive processes from a variety of perspectives. The Neuroscience major has been patterned to follow the recommendations of the advisory committee of the Faculty for Undergraduate Neuroscience. Students, at the point of graduation, should be able to demonstrate the following core competencies:

- an understanding of natural science and three major divisions within neuroscience (behavioral, cellular and molecular, and systems physiology)
- an understanding of experimental methodology, design and data analysis
- an understanding of historical trends and theoretical perspectives that inform the field
- an advanced understanding of a particular area or areas of study within neuroscience
- critical thinking and independent thought
- the ability to communicate effectively
- the ability to discern and articulate a rationale for ethical conduct in research

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

### Course of Study for B.S.

There are four categories of required courses for the Neuroscience Major.

### Degree Requirements

#### Core courses (26 credits)

PSY 101	Introduction to Psychology	3 cr.
NSCI 212	Introduction to Behavioral Neuroscience	3 cr.
PSY 207	Statistics for the Behavioral Sciences	3 cr.
NSCI 232	Research Methods in Neuroscience	3 cr.
NSCI 267	Neurobiology	4 cr.
NSCI 385	Neurodevelopment	3 cr.
NSCI 405	Seminar in Neuroscience	4 cr.
PH 208	Ethics	3 cr.
	or	
PH 231	Biomedical Ethics	3 cr.

**Subtotal: 26**

#### Neuroscience electives (9 crs.)

Students must select three courses from within the Neuroscience program (NSCI 200 - 400 level) or from an approved list of electives from the departments of Psychology, Biology, Physics, or Chemistry.

**Subtotal: 9**

### Neuroscience Tracks (17 credits)

A central mission of the Neuroscience major is to provide opportunities for students to work closely with sponsoring faculty to learn experimental techniques and engage in neuroscience research.

#### Track I - Research Intensive

Students will have the opportunity to rotate through labs to observe and become familiar with various research practices and theories. Students are then required to select a faculty sponsor to engage in research in a more concentrated capacity. After placement, students will engage in a year-long senior thesis project.

NSCI 250	Neuroscience Lab Rotation I	1 cr.
NSCI 251	Neuroscience Lab Rotation II	2 cr.
NSCI 350	Neuroscience Lab Placement I	3 cr.
NSCI 351	Neuroscience Lab Placement II	3 cr.
NSCI 450	Senior Neuroscience Thesis I	4 cr.
NSCI 451	Senior Neuroscience Thesis II	4 cr.

**Subtotal: 17**

#### Or Track II - Course Intensive

Students have the option to continue with the Neuroscience Major by completing additional upper level courses in Neuroscience or approved courses in other disciplines.

NSCI 250	Neuroscience Lab Rotation I	1 cr.
NSCI 251	Neuroscience Lab Rotation II	2 cr.
3XX/4XX	Fourteen 3xx/4xx credits in Neuroscience or approved courses	14 cr.

**Subtotal: 17**

#### Basic science and math courses (30 credits)

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
MATH 109	Pre-Calculus Mathematics	3 cr.
	or	
MATH 123	Calculus I for Mgt, Life, and Social Science	3 cr.
MATH 120	Intro Stats for the Arts & Sci	3 cr.
	or	

MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
		<b>Subtotal: 30</b>

Total Credit Hours: 82

### Neuroscience Suggested Sequence of Courses

#### Degree Requirements

##### Freshman Year - Fall Semester

PSY 101	Introduction to Psychology	3 cr.
ENGL 132	English Composition I	3 cr.
BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.
MATH 109	Pre-Calculus Mathematics	3 cr.
or		
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
		<b>Subtotal: 16</b>

##### Freshman Year - Spring Semester

NSCI 212	Introduction to Behavioral Neuroscience	3 cr.
ENGL 133	English Composition II	3 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
PEHR 153-199	Lifetime Activity	1 cr.
MATH 120	Intro Stats for the Arts & Sci	3 cr.
or		
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
		<b>Subtotal: 14</b>

##### Sophomore Year - Fall Semester

PSY 207	Statistics for the Behavioral Sciences	3 cr.
NSCI 267	Neurobiology	4 cr.
PH 208	Ethics	3 cr.
or		
PH 231	Biomedical Ethics	3 cr.
CHEM 105	General Chemistry I	4 cr.
NSCI 250	Neuroscience Lab Rotation I	1 cr.
		<b>Subtotal: 15</b>

##### Sophomore Year - Spring Semester

NSCI 232	Research Methods in Neuroscience	3 cr.
NSCI 2XX-4XX	Neuroscience Elective	3 cr.

CHEM 106	General Chemistry II	4 cr.
NSCI 247	Scientific Communication	3 cr.
NSCI 251	Neuroscience Lab Rotation II	2 cr.
		<b>Subtotal: 15</b>

##### Junior Year - Fall Semester

NSCI 385	Neurodevelopment	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CS 13X	Computer Competence	3 cr.
NSCI 3XX/4XX	Neuroscience Elective	3 cr.
NSCI 350	Neuroscience Lab Placement I	3 cr.
or		
NSCI 3XX/4XX	Neuroscience Elective	3 cr.
		<b>Subtotal: 16</b>

##### Junior Year - Spring Semester

HIST 1XX	Historical Perspective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
NSCI 3XX/4XX	Neuroscience Elective	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
NSCI 351	Neuroscience Lab Placement II	3 cr.
or		
NSCI 3XX/4XX	Neuroscience Elective	3 cr.
		<b>Subtotal: 16</b>

##### Senior Year - Fall Semester

ILP XXX	Integrated Liberal Professional Perspective	3 cr.
NSCI 405	Seminar in Neuroscience	4 cr.
GEN XXX	General Elective	3 cr.
NSCI 450	Senior Neuroscience Thesis I	4 cr.
or		
NSCI 3XX/4XX	Neuroscience Elective	4 cr.
		<b>Subtotal: 14</b>

##### Senior Year - Spring Semester

CUL XXX	Cultural Perspective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
NSCI 451	Senior Neuroscience Thesis II	4 cr.
or		
NSCI 3XX/4XX	Neuroscience Elective	4 cr.
		<b>Subtotal: 16</b>

Total Credit Hours: 122

## Philosophy Major

### General Information

Philosophers engage in critical, rigorous, disciplined reflection about the world around us, the social systems in which we live, and the individuals with whom we live. They ask such questions as, Does God exist? Do we have nonphysical souls or minds? Do we have free will? What is the difference between knowing and believing? How can we distinguish between moral right and wrong? What rights do people have? What is justice?

The questions that philosophers ask are those that most reflective people ask at some point in their lives. Philosophy differs from science in that the answers to its questions cannot be directly confirmed by appeal to perception and observation. That doesn't mean, though, that we cannot distinguish between more reasonable and less reasonable answers. Philosophers appeal to reason in answering their questions. That is, they critically evaluate the reasons for and against the various views one can have on these questions in order to determine what it is most reasonable to believe and do. They evaluate the arguments of others, analyze concepts, and construct arguments to defend their own views.

The study of philosophy helps develop our critical and analytical capacities, our ability to understand what we read, and our ability to argue and persuade. It helps us understand, appreciate, and respect other points of view. It reinforces respect for truth and love of learning. It enhances flexibility in thinking, imagination, and intellectual creativity, and nourishes the sense of wonder and the passion for wisdom. It increases sensitivity to moral issues and provides intellectual tools for thinking constructively about them.

### Career Opportunities

The Philosophy major prepares students for any career that requires or values the abilities to think rigorously, critically, and creatively; to communicate effectively orally and in writing; to comprehend what one reads; to analyze information and to appreciate the limits of reliability and degrees of uncertainty; and to work effectively with others while respecting people with different points of view and from different cultural traditions. Most employers prize these abilities. In addition, almost every public and private institution, such as hospitals, social service agencies, corporations, and government departments, face complex ethical issues. People who have studied philosophy are in a particularly good position to help these institutions clarify the issues they face and make reasonable decisions.

Philosophy majors are among those who do best on the Graduate Record Examination Law School Admission Test and who do best in law school, as well as medical school. The major in Philosophy can also prepare highly motivated students for graduate study in philosophy.

### Arts and Humanities Faculty (p. 32)

Professors: Emmett Barcalow, Burton Porter

Associate Professor: Heather Salazar

### Program Objectives

- To provide students with knowledge of major figures and trends in the history of philosophy.
- To provide students with knowledge of the major ethical and political theories in the Western tradition.
- To provide students with the intellectual skills that will enable them to apply philosophical theories to real world problems

encountered in personal and family life, at work, and as citizens of a democracy.

- To encourage students to evaluate carefully the reliability of sources of information and the reasonability of what they read and hear.
- To enhance students' ability to comprehend what they read.
- To enhance students' ability to make inferences and see logical connections among claims.
- To enhance students' ability to communicate effectively in writing and orally.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

### Degree Requirements

#### Required Courses

PH 103	Introduction to Philosophy	3 cr.
PH 110	Critical Thinking	3 cr.
	or	
PH 204	Symbolic Logic	3 cr.
PH 120/REL 120	East Asian Traditions	3 cr.
PH 208	Ethics	3 cr.
PH 230	Social and Political Philosophy	3 cr.
PH 340	Ancient Philosophy	3 cr.
PH 341	Modern and Contemporary Philosophy	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.

Three other Philosophy courses at the 200 or 300 level

**Subtotal: 33**

Total Credit Hours: 33

### Philosophy Suggested Sequence of Courses

#### Degree Requirements

##### Freshman Year- Fall Semester

ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PH 103	Introduction to Philosophy	3 cr.
CS 13X	Computer Competence	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

##### Freshman Year - Spring Semester

ENGL 133	English Composition II	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.

HIST XXX	Historical Perspective	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
GEN XXX	General Elective	3 cr.
PH 110	Critical Thinking	3 cr.
	or	
PH 204	Symbolic Logic	3 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

GEN XXX	General Elective	3 cr.
PH 120/REL 120	East Asian Traditions	3 cr.
LAB XXX	Laboratory Science Requirement	3 cr.
PSY/SO XXX	Social Behavioral Perspective	3 cr.
CUL 2XX	Cultural Studies	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
PH 208	Ethics	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
GEN XXX	General Elective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

PH 230	Social and Political Philosophy	3 cr.
PH 2XX/3XX	Philosophy Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Electives	6 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

PH XXX	Philosophy Elective	3 cr.
PH 2XX/3XX	Philosophy Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Electives	4 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

PH 340	Ancient Philosophy	3 cr.
GEN XXX	General Electives	12 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

PH 341	Modern and Contemporary Philosophy	3 cr.
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PH 480	Internship in Philosophy	3 cr.
GEN 3XX	General Electives	9 cr.
		<b>Subtotal: 15</b>

Total Credit Hours: 122

**Political Science Major**

(Formerly Government)

**General Information**

The general objective of the Political Science major is to equip students with the analytical tools necessary to understand political processes at work within their own and other societies as well as among states in the global community. The major program offers a wide variety of courses in the areas of American government, comparative politics, international relations, and political thought. Political Science majors benefit from an active internship program that places eligible students in business and industry as well as local, state, and federal government.

**Career Opportunities**

Graduates of the program attend law school as well as graduate programs in political science, public administration, and business. Others enter government service or pursue careers in diverse areas ranging from education to business.

**History and Political Science Faculty** (p. 33)

Professors: William Mandel, Donald Williams

Associate Professors: Peter Fairman, Timothy Vercellotti

Assistant Professor: Laura Janik

**Program Objectives**

1. To assist students in acquiring a more sophisticated understanding of politics in the United States.
2. To develop an appreciation for political processes at work within other societies.
3. To equip students with the analytical tools necessary to understand political processes at work among states in the global community.
4. To accommodate individual interests by providing a wide variety of courses in the areas of American government, comparative government, international relations, and political thought.
5. To provide opportunities for students to pursue internships in local, state, and federal government.

**General University and College Requirements**

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

**Degree Requirements**

Required Political Science courses (24 credit hours)

POSC 101/INST 101	Introduction to Contemporary Global Issues	3 cr.
POSC 102	American National Government	3 cr.
POSC 201	Comparative Politics	3 cr.

POSC 203	International Relations	3 cr.
POSC 207	Western Political Thought	3 cr.
POSC 212	Political Analysis	3 cr.
POSC 490	Seminar in Political Science	3 cr.
POSC 205	Public Administration	3 cr.
	or	
POSC 210	State Politics in America	3 cr.
	or	
POSC 218	Public Policy in America	3 cr.
	or	
POSC 225	Law and Judicial Politics	3 cr.
GEOG 101	World Geography	3 cr.
	or	
GEOG 110	Geography of United States and Canada	3 cr.
		<b>Subtotal: 24</b>

Twenty-one additional credit hours of political science including 15 additional credit hours of upper-level courses (POSC 300-400).

The 15 upper-level credit hours must include three credit hours each of comparative government, international relations, and American government.

**Subtotal: 21**

Eighteen credit hours in social sciences including EC 111 and EC 112, and at least three credit hours in geography, history, and psychology.

Also students must take MATH 120.

**Subtotal: 18**

Subtotal: 63

The 2.0 required grade point average in the major is based upon all POSC courses pursued as a part of the student's degree program.

Total Credit Hours: 63

## Political Science Suggested Sequence of Courses

The schedule of courses below is a sample sequence for a Political Science major. Many students become Political Science majors in their sophomore year and fulfill the major requirements without academic sacrifice.

### Degree Requirements

#### Freshman Year- Fall Semester

HIST XXX	History Perspective	3 cr.
POSC 102	American National Government	3 cr.
MATH 1XX	Mathematical Analysis	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
		<b>Subtotal: 14</b>

#### Freshman Year - Spring Semester

POSC 101/INST 101	Introduction to Contemporary Global Issues	3 cr.
PSY 101	Introduction to Psychology	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
GEN XXX	General Elective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
ENGL 133	English Composition II	3 cr.
		<b>Subtotal: 16</b>

#### Sophomore Year - Fall Semester

POSC 201	Comparative Politics	3 cr.
POSC 203	International Relations	3 cr.
EC 111	Principles of Microeconomics	3 cr.
LAB XXX	Laboratory Science Requirement	3-4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 16</b>

#### Sophomore Year - Spring Semester

POSC 207	Western Political Thought	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
POSC 2XX	Political Science Elective	3 cr.
POSC 212	Political Analysis	3 cr.
		<b>Subtotal: 16</b>

#### Junior Year - Fall Semester

PH XXX	Ethical Perspective	3 cr.
CS 13X	Computer Competence	3 cr.
POSC 2XX/3XX	Political Science Elective	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
GEOG 101	World Geography	3 cr.
	or	
GEOG 110	Geography of U.S. and Canada	3 cr.
		<b>Subtotal: 15</b>

#### Junior Year - Spring Semester

POSC 3XX	Upper Level Political Science Elective	3 cr.
POSC 3XX	Upper Level Political Science Elective	3 cr.
GEN XXX	General Elective	3 cr.
SBP XXX	Social/Behavioral Sciences Perspective	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

POSC 3XX	Upper Level Political Science Elective	3 cr.
POSC 3XX	Upper Level Political Science Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

POSC 490	Seminar in Political Science	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Two courses must be designated as writing intensive courses.

Total Credit Hours: 122

**Pre-pharmacy Program**

**General Information**

The Pre-pharmacy program offered by the College of Arts and Sciences provides an opportunity for qualified students to prepare for admission to any school of pharmacy leading to the Doctor of Pharmacy degree. More specifically, students who successfully complete all of the requirements of the Western New England University Pre-pharmacy program will be placed in the “preferred” applicant pool for entry into the Western New England University College of Pharmacy. Following submission of their application by the deadline established by the College of Pharmacy, preferred applicants are granted an automatic interview with the College of Pharmacy admissions committee. All other students will be placed in the general applicant pool.

To successfully satisfy the requirements of the Western New England University Pre-pharmacy program, a student must:

- complete the required 67 credits within two academic years as listed below for each fall and spring semester (Please note: It is important that pre-pharmacy students demonstrate a capacity to handle 17 and 18 credit semesters, therefore, any credits taken outside the fall and spring semesters listed below must be replaced by courses of comparable rigor as determined in consultation with the student’s academic adviser);
- transfer in no credits of science coursework completed prior to matriculation at Western New England University and, following matriculation, transfer in no credits for any course satisfying a requirement for the Pre-pharmacy program; and
- maintain an overall GPA of 3.30 for all Pre-pharmacy course work with no grade in any course less than a “C”. Students may not withdraw from or retake any course that would have satisfied any of the Pre-pharmacy requirements.

The College of Pharmacy will offer guaranteed admissions interviews *first* to those Pre-pharmacy students who attain a cumulative GPA of 3.30 or higher after their first year of Pre-pharmacy coursework, and then to those Pre-pharmacy student who attain a cumulative GPA of at least 3.00.

**Pre-pharmacy Program Summary**

**Degree Requirements**

**First Year - First Semester**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
PSY 101	Introduction to Psychology	3 cr.

**Subtotal: 17**

**First Year - Second Semester**

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
ENGL 133	English Composition II	3 cr.
COMM 102	Introduction to Public Speaking	3 cr.

**Subtotal: 17**

**Second Year - First Semester**

PHYS 123	Physics of the Life Sciences 1	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
BIO 215	Anatomy and Physiology I	4 cr.
PH 208	Ethics	3 cr.

**Subtotal: 15**

**Second Year - Second Semester**

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
EC 111	Principles of Microeconomics	3 cr.
BIO 203	Microbiology	4 cr.
BIO 216	Anatomy and Physiology II	4 cr.
SSEL XXX	Social Science Elective	3 cr.
	or	
ILP 238	Global Health and Technology	3 cr.
	or	
ILP 250	AIDS: A Global Pandemic	3 cr.

**Subtotal: 18**

\* Note: Social Science Elective can be met with one course (three credit hours) in one of the following subjects: history, sociology, political science, law and society.

\*\*Note: Global Health Elective can only be met by ILP 238 or ILP 250

Subtotal: 67

Total Credit Hours: 67

Pre-physician Assistant

## Pre-physician Assistant Program

### General Information

The Pre-physician Assistant program offered by the College of Arts and Sciences provides an opportunity for qualified students to prepare for admission to a Physician Assistant program.

Students who successfully complete their first year in an accredited PA Program have the option of receiving a BS in Health Sciences from Western New England University.

To successfully satisfy the requirements of the Western New England University Pre-PA program, a student must:

- Complete the required 101 credits within three academic years as listed below for each fall and spring semester.
- Transfer in no credits (including AP credits) of science coursework completed prior to matriculation at Western New England University and, following matriculation, transfer in no credits for any course satisfying a requirement for the Pre-PA program.
- Maintain a sufficiently high GPA for all Pre-PA course work with no grade in any course less than a "C".

NOTE: Students should check with the particular PA Programs for their particular admission requirements.

Physical and Biological Science Faculty (p. 33)

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34)

## Degree Requirements

### Required biology courses

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
BIO 203	Microbiology	4 cr.
BIO 215	Anatomy and Physiology I	4 cr.
BIO 216	Anatomy and Physiology II	4 cr.
BIO 306	Genetics	4 cr.

**Subtotal: 24**

### Required chemistry courses

CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.

CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.

**Subtotal: 20**

### Required math and physics courses

MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.

**Subtotal: 17**

### Additional requirements

Out of the program's 101 required credits, 2 of the courses must meet WIC requirement, and there are 2 required LBC experiences.

LBC 2XX	Learning Beyond the Classroom	No cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
WIC XXX	Writing Intensive course	3 cr.

Subtotal: 61

Total Credit Hours: 61

## Pre-physician Assistant Suggested Sequence of Courses

Students who have successfully completed the Western New England University Pre-physician Assistant program requirements can be considered for admission to the Salus University Physician Assistant Studies program, which leads to the Master of Medical Science.

Applicants to the Salus University Physician Assistant Studies program must:

- Complete the curriculum of 101 credits required by the Pre-physician Assistant program within three academic years.
- Maintain an overall GPA of 3.1 for all coursework and otherwise be in good standing in the Western New England University Pre-PA program.

Under the articulation agreement, Salus will provide up to four seats for qualified Western New England University pre-PA program students who apply for admission and are accepted into the Salus Physician Assistant Studies program.

If there are more than four Western New England University Pre-PA students who successfully meet all criteria for admission to the Salus PA program, the remaining applicants not offered one of the four seats will be considered for admission to the Salus PA along with other applicants in the Salus University general application pool. Salus University will confer the Master of Medical Science (MMS) degree to students who successfully complete the Physician Assistant Studies program at Salus.

Qualified candidates may submit an application to the Salus Physician Assistant Studies Program through the Central Application Service for Physician Assistants (CASPA) by September 1 at the start of the third year in the Pre-PA program.

At the time of application to Salus University, students must:

1. have accumulated at least the minimum number of required hours of direct patient care experience as listed on the Salus University website where a list of qualifying experiences is available.
2. have earned and maintained a current certificate in Basic Life Support for Healthcare Provider offered through the American Heart Association (AHA).
3. have a minimum CASPA calculated overall cumulative grade point average of 3.10 or higher.
4. have a minimum CASPA calculated BCP grade point average of 3.10. (BCP GPA includes all biology, chemistry, and physics courses completed.)
5. arrange for submission of a letter of recommendation from a Western New England University faculty member in the sciences familiar with the student's academic work as part of the CASPA application. (For additional required letters, check with Salus University Admissions.)
6. provide Western New England University with the Salus transcript after successful completion of first year of the Salus PA Studies program in order to receive a BS in Health Sciences from Western New England University.

NOTE: Students interested in applying to other PA programs should check with those schools for their particular admission requirements, which may require applicants to have a bachelor's degree.

## Degree Requirements

### Freshman Year - Fall Semester

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 17**

### Freshman Year - Spring Semester

BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 106	General Chemistry II	4 cr.
ENGL 133	English Composition II	3 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
PSY 101	Introduction to Psychology	3 cr.

**Subtotal: 17**

### Sophomore Year - Fall Semester

PSY 201	Developmental Psychology	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
MATH 121	Introductory Probability and Statistics	3 cr.
CS 131	Computing for the Arts and Sciences	3 cr.
BIO 215	Anatomy and Physiology I	4 cr.

**Subtotal: 17**

### Sophomore Year - Spring Semester

CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CUL XXX	Cultural Perspective	3 cr.
BIO 216	Anatomy and Physiology II	4 cr.
PH 208	Ethics	3 cr.
POSC 102	American National Government	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 17**

### Junior Year - Fall Semester

BIO 306	Genetics	4 cr.
PHYS 123	Physics of the Life Sciences 1	4 cr.
ART XXX	Aesthetic Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17**

### Junior Year - Spring Semester

PHYS 124	Physics of the Life Sciences 2	4 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
PSY 326	Abnormal Psychology	3 cr.
BIO 203	Microbiology	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

Subtotal: 101

NOTE:

Students interested in applying to other PA programs should check with those schools for their particular admission requirements, which may require applicants to have a bachelor's degree.

## Psychology Major

### General Information

Psychology is the scientific study of behavior. In addition to helping students understand themselves and others, the research findings of

psychology have wide application to many professional fields, from human services to medical, industrial, and educational settings. Within the major there is flexibility to select courses that meet individual career objectives, i.e. Sports Psychology, School Psychology, Forensic Psychology, Health Psychology, Organizational Psychology, Clinical Psychology, Child Psychology, Neuropsychology, Applied Behavior Analysis, Special Education, Autism Treatment, Cognitive Psychology, Developmental Psychology, Social Psychology, Gender Studies, Conservation Psychology, etc.

The Department of Psychology offers students the opportunity to receive either the BA or the BS Degree. The BS degree includes all of the requirements of the BA degree, along with an additional six credits of any science courses, as well as an additional 12 credits of research courses in Psychology (or any 18 credit combination of research courses in Psychology and science courses approved by the department chairperson).

Students interested in pursuing a research methods track should take one or more of our advanced research courses.

Students interested in the Neuroscience major should see Neuroscience Major (p. 87) for a full description of the Neuroscience program.

Students may also pursue teacher certification at the elementary level by also majoring in Elementary Education, or receive training in special education by participating in the New England Center for Children internship program.

### Career Opportunities

Students are prepared to enter the world of work in counseling, research, autism treatment, personnel administration, human service agencies, special education, elementary school teaching or other child life work; to continue their studies at the graduate level; or to enter related fields such as medicine, law, criminal justice, and social work.

**Psychology Faculty** (p. 33)

### Program Objectives

1. To study human and other animal behavior from a scientific perspective with consideration of the environmental, biological, and multicultural influences on behavior.
2. To introduce students to the scientific findings of psychology as they relate to diverse populations and as they apply to a range of professional fields including medicine, human services, industry, and educational settings.
3. To provide flexibility of course selection to meet individual career objectives.
4. To encourage internships and minors in related fields of interest.

### Student Competencies

Students who complete the degree requirements in psychology should be able to:

- identify the environmental, biological, and multicultural influences on behavior;
- differentiate and appreciate the value of primary research literature in psychology compared to popular media reports;
- understand and perform statistical analyses and know how to generate an original research hypothesis;

- demonstrate how psychologists use the scientific method to generate psychology's knowledge base;
- gather information in psychology using a variety of relevant resources including PsycINFO database, MedLine, etc.;
- prepare papers using an APA format;
- demonstrate sensitivity to issues of human diversity as they apply to psychological research and practice;
- understand how contemporary psychology evolved from its historical roots;
- demonstrate what ethical principles apply to psychologists in testing, counseling, and research.

### Student Assessment

Students' progress in psychology is assessed in a variety of ways and may include: objective and essay quizzes and examinations, class attendance and participation, journals, individual and group projects, oral presentations, poster sessions, research papers, critical review papers, videotaping, and simulations.

Students are encouraged to keep a portfolio of their work as a means of tracking their own development, as well as to demonstrate their abilities and accomplishments when applying to graduate school and/or for positions in the field of psychology.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

### Degree Requirements

Required courses (27 credit hours):

PSY 101	Introduction to Psychology	3 cr.
PSY 201	Developmental Psychology	3 cr.
PSY 207	Statistics for the Behavioral Sciences	3 cr.
PSY 214	Social Psychology	3 cr.
PSY 309	Research Methods	3 cr.
NSCI 212	Intro to Behavioral Neuroscience	3 cr.
PSY 313	Learning	3 cr.
PSY 326	Abnormal Psychology	3 cr.
PSY 420	History of Psychology and Personality Theory	3 cr.

**Subtotal: 27**

Nine additional credit hours required in upper-level psychology (PSY 300-400) courses.

**Subtotal: 9**

Note that for the BS degree these credit hours may include the required upper level research courses in psychology.

Three additional credit hours in a multicultural perspectives course or an approved equivalent.

**Subtotal: 3**

The 2.0 required grade point average in the major is based on all PSY courses pursued as a part of the student's degree program.

**Total Credit Hours: 39**

**Psychology Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

PSY 101	Introduction to Psychology	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
HIST 1XX	Historical Perspective	3 cr.
MATH XXX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 15</b>

**Freshman Year - Spring Semester**

PSY 201	Developmental Psychology	3 cr.
ENGL 133	English Composition II	3 cr.
CS 13X	Computer Competence	3 cr.
PSY 214	Social Psychology	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

PSY 207	Statistics for the Behavioral Sciences	3 cr.
PSY 313	Learning	3 cr.
PH XXX	Ethical Perspective	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.
BIO 101	Basic Biology: Organisms	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

PSY 309	Research Methods	3 cr.
NSCI 212	Introduction to Behavioral Neuroscience	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
GEN XXX	General Elective	3 cr.
NSP	Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

PSY 3XX/4XX	Psychology Required Elective	3 cr.
PSY 326	Abnormal Psychology	3 cr.
ART XXX	Aesthetic Perspective	3 cr.
SBMP XXX	Multicultural Perspectives	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

Junior Year: Students should consider enrolling in PSY 35x Advanced Research and/or PSY 480 Internship in Psychology during this year and their senior year. Please see the staff in the Career Development Center for a listing of Internship sites.

Multicultural Perspectives: Note that most courses in the African American Studies or Latin American Studies minors fulfill this requirement.

**Junior Year - Spring Semester**

PSY 3XX/4XX	Psychology Required Elective	3 cr.
PSY 3XX/4XX	Psychology Required Elective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
CUL XXX	Cultural Studies Perspective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	1 cr.
		<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

PSY 420	History of Psychology and Personality Theory	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

Senior Year: Students intending to Study Abroad, or intending to become certified as teachers in elementary education, or intending to enroll in the New England Center for Children program, may need to take all of their major requirements except for PSY 420, by the end of their junior year so that one semester of their senior year would be free to go abroad, or to take the Student Teaching Practicum, or participate in the NECC program. Student Teaching Practicum students must also take PSY 304 and ED 301 prior to their senior year. In addition, these students should refer to the elementary education program requirements that list the necessary prerequisites for Teacher Certification, including the specific math, history, government and other requirements necessary for teacher certification in Massachusetts.

Total Credit Hours: 122

**Social Work Major**

**General Information**

The study of professional social work is designed for those dedicated to helping people to satisfy their biological, psychological, and social

needs; to developing mutually beneficial relationships between people and their environments; empowering people to recognize and mobilize their strengths; and to helping society to create policies and programs more responsive to human need.

The overall mission of the Department of Social Work is to prepare students for generalist social work practice at the bachelor's degree level and for graduate level social work education. This preparation is developed through offering the student a broad liberal arts education combined with a social work foundation that incorporates the knowledge, values, and skills of the social work profession. Both the liberal arts sequence and the professional social work sequence emphasize a holistic view of the person-in-environment and the impact of biological, psychological, and social forces upon human functioning. Underlying the knowledge base of social work education at Western New England University are values and ethics that emphasize the worth and dignity of all people regardless of race, gender, age, creed, ethnic or national origin, ability, political orientation, sexual orientation, or social class. The goals and objectives of the Department of Social Work teach students the skills to work in partnership with clients to support and develop strengths and competencies to procure the resources necessary to meet their basic human needs and develop human potential. This Social Work Program is accredited by the Council on Social Work Education at the BSW level and students are eligible to apply for advanced standing to graduate schools of social work, to obtain an MSW degree in one year, rather than two.

### Career Opportunities

Students develop the knowledge, values, and skills to work in a wide variety of social service settings under both governmental and private voluntary auspices. Rewarding career opportunities include work with diverse populations of children and adults at the individual, family, group, and community levels in agencies that provide healthcare, services to abused and neglected children, mental health services, substance abuse rehabilitation, family services, services to battered women, residential child care and treatment, educational settings, criminal justice programs for juvenile and adult offenders, nursing home and elderly services, services for pregnant and parenting teens, services to people affected by HIV/AIDS, and many other programs for people whose emotional and/or physical health and safety are at risk. Students are prepared for entry-level professional generalist social work practice at the BSW level and for further social work education at the graduate level.

**Social Work Faculty** (p. 33)

### Program Goals

1. Engage in evidence-based entry level social work practice within individuals, families, groups, communities and organizations within a multicultural society.
2. Identify and respond to human need, wherever it exists, using interventions that promote the social welfare of all people, with attention to oppressed and vulnerable populations.
3. Understand and practice to enhance human functioning, informed by biological, psychological, sociological, cultural, historical, economic and spiritual knowledge.
4. Identify as a social work practitioner/researcher who can competently apply and integrate theory with evidence-based practice.
5. Facilitate change through professional practice within a professional context that nurtures diverse human relationships at all levels.

6. Engage in policy practice to advance social and economic well-being and to deliver effective social work services.

### General University and College Requirements

See General University Requirements (p. 28) and College of Arts and Sciences Requirements (p. 34).

### Requirements for Acceptance into the BSW Program

1. Students apply during the second semester of their sophomore year. (Transfer students at the junior level must also apply for admission to the social work program prior to beginning their social work methods courses.)
2. Students need to have an overall minimum grade point average of 2.2 and a grade of "C" or better in any social work course and PH 210. (Except for transfer students who have not taken these courses.) A grade of less than a "C" will necessitate repeating the course.
3. Students submit to the department chair a completed application form, a personal essay that shows evidence of a desire to help others and values consistent with the social work profession, a sample of the student's academic writing, and a letter of reference.
4. Interview with department chair.

The admissions process for social work students is used as a vehicle to make sure that those students who become social work majors have a sincere desire to pursue this degree.

### Degree Requirements

#### Required Courses

SW 100	Introduction to Social Work	3 cr.
SW 207	An Invitation to the World of Aging	2 cr.
SW 216	Human Behavior in the Social Environment	3 cr.
SW 300	Social Work Pre-Practicum Seminar	1 cr.
SW 301	Social Work Interventive Methods I	3 cr.
SW 302	Social Work Interventive Methods II	3 cr.
SW 303	Social Work Interventive Methods III	3 cr.
SW 305	The Helping Relationship Project	2 cr.
SW 306	The Helping Relationship Practicum	1 cr.
SW 313	Social Welfare and Social Policy	3 cr.
SW 314	Field Instruction in Macro Practice	3 cr.
SW 320	Dynamics of Oppression and Empowerment	3 cr.
SW 321	Empowerment Practice with Underserved Populations	3 cr.
SW 404	Social Work Interventive Methods IV	3 cr.

SW 409	Field Instruction in Social Work I	3 cr.
SW 410	Field Instruction in Social Work I	3 cr.
SW 411	Field Instruction in Social Work II	3 cr.
SW 412	Field Instruction in Social Work II	3 cr.
SW 414	Seminar in Field Instruction I	2 cr.
SW 415	Seminar in Field Instruction II	1 cr.
SW 419	Social Work and Research	3 cr.
SW 420	Social Work Research Seminar	2 cr.
POSC 102	American National Government	3 cr.
SO 101	Introduction to Sociology	3 cr.
PSY 101	Introduction to Psychology	3 cr.
PSY 201	Developmental Psychology	3 cr.
EC 106	The Economics of Poverty and Discrimination	3 cr.
BIO 101	Basic Biology: Organisms	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PH 210	Ethics for Social Workers	3 cr.
ENGL 336	Ethnic American Literature	3 cr.
SPAN 140	Spanish for Social Services	3 cr.

Note: Requirements for the major can satisfy the student's perspectives of understanding requirements.

The 2.2 required grade point average in the major is based on all SW courses, including PH 210, pursued as part of the student's degree program. A grade of "C" or better is needed in all SW courses taken including PH 210.

Total Credit Hours: 124

**Social Work Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year- Fall Semester**

LA 100	First Year Seminar	2 cr.
LA 101	First Year Field Experience	1 cr.
MATH 1XX	Mathematical Analysis	3 cr.
ENGL 132	English Composition I	3 cr.
SW 100	Introduction to Social Work	3 cr.
PSY 101	Introduction to Psychology	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
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POSC 102	American National Government	3 cr.
CS 13X	Computer Competence	3 cr.
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

SW 216	Human Behavior in the Social Environment	3 cr.
CUL 2XX	Cultural Studies	3 cr.
	or	
xxx	Cultures/Aesthetics course	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
BIO 101	Basic Biology: Organisms	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

EC 106	The Economics of Poverty and Discrimination	3 cr.
SW 207	An Invitation to the World of Aging	2 cr.
ART XXX	Aesthetic Perspective	3 cr.
	or	
xxx	Cultures/Aesthetics course	3 cr.
SPAN 140	Spanish for Social Services	3 cr.
NSP	Natural Science Perspective	3 cr.

**Subtotal: 14**

**Junior Year - Fall Semester**

SW 301	Social Work Interventive Methods I	3 cr.
SW 306	The Helping Relationship Practicum	1 cr.
SW 320	Dynamics of Oppression and Empowerment	3 cr.
SW 300	Social Work Pre-Practicum Seminar	1 cr.
PSY 326	Abnormal Psychology	3 cr.
PH 210	Ethics for Social Workers	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 17**

**Junior Year - Spring Semester**

SW 302	Social Work Interventive Methods II	3 cr.
SW 313	Social Welfare and Social Policy	3 cr.

SW 321	Empowerment Practice with Underserved Populations	3 cr.
SW 303	Social Work Interventive Methods III	3 cr.
SW 314	Field Instruction in Macro Practice	3 cr.
SW 305	The Helping Relationship Project	2 cr.

**Subtotal: 17****Senior Year - Fall Semester**

SW 404	Social Work Interventive Methods IV	3 cr.
SW 419	Social Work and Research	3 cr.
SW 409	Field Instruction in Social Work I	3 cr.
SW 410	Field Instruction in Social Work I	3 cr.
SW 414	Seminar in Field Instruction I	2 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 17****Senior Year - Spring Semester**

SW 411	Field Instruction in Social Work II	3 cr.
SW 412	Field Instruction in Social Work II	3 cr.
SW 415	Seminar in Field Instruction II	1 cr.
SW 420	Social Work Research Seminar	2 cr.
ENGL 336	Ethnic American Literature	3 cr.

**Subtotal: 12**

Note: SW 419 and ENGL 336 (or its equivalent) have been designated as Writing Intensive courses.

Total Credit Hours: 124

**Sociology Major****General Information**

The sociological perspective helps us to recognize that individuals' lives are shaped by society. Sociologists learn to see social patterns in individual behavior and to apply scientific reasoning to all aspects of social life. Areas of special interest include the family, education, the economy, poverty, social inequality, social change, and deviance. While contemporary American society is the main focus of the major, comparative and cross-cultural approaches are also included. The unique perspective and insight offered by sociology provide a significant opportunity to understand forces that shape and determine our lives. Research and writing skills are emphasized, and students have an opportunity to conduct their own research. Students may choose to concentrate in Crime and Society. Students may also pursue teacher certification at the elementary level by also majoring in Elementary Education.

**Career Opportunities**

The sociology major provides an excellent background for careers in social services, teaching, career counseling, personnel management, insurance, school administration, health administration, police, courts, and corrections.

**Criminal Justice and Sociology Faculty** (p. 33)

Professor: Michaela Simpson

Associate Professor: Laura Hansen

Assistant Professor: William Force

**Program Objectives**

1. Demonstrate an ability to conduct research on a social issue in a way that lends itself to practical application in a number of fields, including business, criminal justice, government, and in social services.
2. Ability to identify, define, and discuss the social significance of key sociological variables and apply them to real-world issues.
3. Ability to identify and define social patterns and their effect (or impact) on social institutions and organizations.
4. Demonstrate an ability to apply social analysis in discussion of social change.
5. Successfully apply social theory and methods within completion of an internship in preparation for a meaningful career.

**General University and College Requirements**

See General University Requirements and College of Arts and Sciences Requirements.

**Degree Requirements**

Required sociology courses (16 credit hours)

SO 101	Introduction to Sociology	3 cr.
SO 201	Social Problems	3 cr.
SO 301/CJ 301	Research Methods	4 cr.
	or	
SO 307/CJ 307	Qualitative Research Methods	4 cr.
SO 322	Social Theory	3 cr.
SO 3XX-4XX	Sociology Elective	3 cr.

**Subtotal: 16**

An additional eighteen credit hours in sociology with at least four courses (12 credit hours) selected from upper-level courses in sociology (300-level or above) is required.

Total Credit Hours: 34

**Sociology Suggested Sequence of Courses****Degree Requirements****Freshman Year - Fall Semester**

SO 101	Introduction to Sociology	3 cr.
ENGL 132	English Composition I	3 cr.
CS XXX	Computer Competence Requirement	3 cr.

LA 100	First Year Seminar	2 cr.
MATH 1XX	Mathematical Analysis	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 15**

**Freshman Year - Spring Semester**

LAB XXX	Laboratory Science Requirement	3-4 cr.
GEN XXX	General Elective	3 cr.
ENGL 133	English Composition II	3 cr.
PSY 101	Introduction to Psychology	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
PEHR XXX	Lifetime Activities	1 cr.

**Subtotal: 16-17**

**Sophomore Year - Fall Semester**

SO 201	Social Problems	3 cr.
SO xxx	Sociology Elective	3 cr.
CUL 2XX	Cultural Studies	3 cr.
GEN XXX	General Electives	6 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

SO xxx	Sociology Elective	3 cr.
SO 3XX/4XX	Sociology Elective	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

EC xxx	Eco-Social Science Req	3 cr.
POSC 102	American National Government	3 cr.
SO 322	Social Theory	3 cr.
SO 3XX-4XX	Sociology Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

SO 301/CJ 301	Research Methods	4 cr.
	or	
SO 307/CJ 307	Qualitative Research Methods	4 cr.
HIST XXX	Historical Perspective	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.
GEN XXX	General Electives	7 cr.

**Subtotal: 15-16**

**Senior Year - Fall Semester**

SO 3XX/4XX	Sociology Elective	3 cr.
SO 3XX-4XX	Sociology Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
PH XXX	Ethical Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
SO 3XX/4XX	Sociology Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.

**Subtotal: 15**

Note: If students choose to take SO 301 Research Methods they must take SO 300 as a prerequisite.

Total Credit Hours: 121-123

**Crime and Society Concentration**

**General Information**

The Crime and Society concentration focuses on the behavior that violates the criminal law and seeks explanations for that behavior from the sociological perspective. Sociologists learn to see social patterns in individual behavior and to apply scientific reasoning to all aspects of social life. Students learn how certain behavior has come to be defined as criminal. Research and writing skills are emphasized, and students have an opportunity to conduct their own research and to engage in internship opportunities.

**Career Opportunities**

The crime and society concentration provides an excellent background for all careers in the criminal justice field, including policing, courts, and corrections. Additional career opportunities include the social services such as juvenile delinquency prevention, abuse and neglect investigation, and juvenile corrections.

**Program Objectives**

1. Demonstrate an ability to conduct research on a social issue in a way that lends itself to practical application in a number of fields, including business, criminal justice, government, and in social services.
2. Ability to identify, define, and discuss the social significance of key sociological variables and apply them to real-world issues.
3. Ability to identify and define social patterns and their effect (or impact) on social institutions and organizations.
4. Demonstrate an ability to apply social analysis in discussion of crime.
5. Successfully apply social theory and crime causation within completion of an internship in preparation for a meaningful career.

**Degree Requirements**

## Required Courses (34 Credits)

SO 101	Introduction to Sociology	3 cr.
SO 201	Social Problems	3 cr.
CJ 210/SO 210	Criminology	3 cr.
SO 214	Drugs, Society, and CJ System	3 cr.
SO 235/CJ 235	Domestic Violence	3 cr.
SO 306/CJ 306	Disability and Mental Health Issues in Criminal Justice	3 cr.
SO 307/CJ 307	Qualitative Research Methods	4 cr.
SO 309	Deviance	3 cr.
SO 322	Social Theory	3 cr.
SO 342/CJ 342	Juvenile Delinquency	3 cr.
SO 3XX/4XX	Sociology Elective	3 cr.

**Subtotal: 34**

Total Credit Hours: 34

**Crime And Society Suggested Sequence of Courses****Degree Requirements****Freshman Year - Fall Semester**

SO 101	Introduction to Sociology	3 cr.
CJ 101	Introduction to Criminal Justice	3 cr.
ENGL 132	English Composition I	3 cr.
LA 100	First Year Seminar	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.
MATH XXX	Mathematical Analysis	3 cr.

**Subtotal: 15****Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
SO 201	Social Problems	3 cr.
CJ 210/SO 210	Criminology	3 cr.
PEHR XXX	Lifetime Activities	1 cr.

**Subtotal: 16****Sophomore Year - Fall Semester**

CUL XXX	Cultural Studies Perspective	3 cr.
LAB XXX	Laboratory Science	3 cr.
MATH 120	Intro Statistics for the Arts & Sciences	3 cr.
WIC 2XX	Writing Intensive Course	3 cr.
SO 214	Drugs, Society, and CJ System	3 cr.

LBC 2XX	Learning Beyond the Classroom	No cr.
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**Subtotal: 15****Sophomore Year - Spring Semester**

GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
NSP	Natural Science Perspective	3 cr.
PSY 101	Introduction to Psychology	3 cr.
CJ 235/SO 235	Domestic Violence	3 cr.

**Subtotal: 15****Junior Year - Fall Semester**

EC xxx	Eco-Social Science Req	3 cr.
GEN XXX	General Elective	3 cr.
POSC 102	American National Government	3 cr.
SO 306/CJ 306	Disability and Mental Health Issues in Criminal Justice	3 cr.
SO 307/CJ 307	Qualitative Research Methods	4 cr.

**Subtotal: 16****Junior Year - Spring Semester**

GEN XXX	General Elective	1 cr.
GEN XXX	General Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
SO 309	Deviance	3 cr.
SO 322	Social Theory	3 cr.
WIC 3xx-4xx	Writing Intensive Course	3 cr.

**Subtotal: 16****Senior Year - Fall Semester**

GEN XXX	General Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
CS XXX	Computer Competence Requirement	3 cr.
PH XXX	Ethical Perspective	3 cr.
SO 342/CJ 342	Juvenile Delinquency	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15****Senior Year - Spring Semester**

ART XXX	Aesthetic Perspective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
GEN 3XX/4XX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
SO 3XX/4XX	Sociology Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 123

## College of Business

Dean Robert E. Kleine  
Assistant Dean for Graduate Studies Janelle Goodnight  
Assistant Dean for Undergraduate Studies Kara Kapinos

### College of Business Mission and Vision Statement

#### Mission

The mission of the Western New England University College of Business is to provide excellent academic preparation toward the development of ethical, responsible, and resourceful business professionals through challenging and relevant learning experiences.

#### Vision

The College of Business will be recognized among peer institutions and the business community for preparing students with the teamwork, communication, technology, decision making, and leadership skills to achieve effective business solutions, successful careers, and contributions to the community in a constantly changing global environment.

#### Degree Learning Goals

The undergraduate curriculum for students in the College of Business includes the following learning goals.

1. To solve business problems by thinking critically and applying principles of effective decision making.
2. To generate, evaluate, and select alternatives consistent with standards of ethical behavior.
3. To perform well on teams, to provide leadership, to contribute and collaborate to achieve team goals.
4. To communicate professionally, to present analyses, recommendations, and plans clearly, both orally and in writing.
5. To apply information technology concepts and tools to support business problem solving and decision making.
6. To recognize the dynamic domestic and international factors that shape and transform the global business environment.
7. To understand the fundamental concepts from the business disciplines.

#### Career Preparation

In order to guide students in selecting an appropriate career path, faculty in each department in the College of Business designed to a variety of classroom and outside of the classroom activities to guide the students through the process of a) Career Exploration in the freshman year, b) Career Investigation in the sophomore year, c) Career Determination in the junior year and finally d) Career Implementation in the senior year. In these progressive exercises student will link their interests and skills with career paths culminating with activities designed to help the student to enter the field of choice.

#### Special Academic Opportunities (p. 104)

#### Requirements

Most majors in the College of Business lead to the Bachelor of Science in Business Administration degree. Complete requirements for each of the majors in the College of Business are specified under a separate section of this catalogue devoted to major programs. They are accounting, arts & entertainment management, business analytics and information management, entrepreneurship, finance, general

business, international business, management and leadership, marketing, marketing communications/advertising, pharmaceutical business, secondary education general business and sport management. Each undergraduate major in the College of Business includes a general education component that normally comprises at least 50 percent of the student's four-year program. Requirements common to all majors are:

1. Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206 Business Writing in the sophomore year.
2. Complete at least 33 credit hours of course work at the 300-400 level.
3. Complete at least 12 credit hours of course work at the 300-400 level in the major at Western New England University. The identification of these upper-level courses are listed under each major.
4. Apply no more than 12 credit hours of ROTC courses towards the graduation requirements.
5. Meet all of the requirements specified under Academics, Undergraduate Policies, Procedures, Requirements, and General University Requirements in this catalogue.

#### College of Business Department Chairs and Faculty

##### ***Department of Accounting and Finance Faculty***

Professor: John Coulter, Chair

Professors: William Bosworth, May Lo

Associate Professors: Yong Wang, Lori Holder-Webb

Assistant Professors: George Gu, Ausher M.B. Kofsky, Michael E. Opara, Bryan Schmutz

Professional Educator: Stephen Sugermeyer

##### ***Department of Business Information Systems Faculty***

Professor: Anil Gulati, Chair

Professors: Tuncay Bayrak, Jerzy Letkowski

Associate Professor: Bahadir Akcam

Assistant Professor: Charles Mutigwe

Professional Educator: Richard Willis

##### ***Department of Management Faculty***

Associate Professor: Melissa Knott, Chair

Professors: Jeanie Forray, Lynn Bowes-Sperry

Associate Professor: Lynn Walter

Assistant Professors: Joseph Gerard, Stacie Chappell

Professional Educator: John P. Greeley

##### ***Department of Marketing Faculty***

Professor: Paul Costanzo, Chair

Professors: Elizabeth Elam, Janelle Goodnight, Harlan Spotts

Assistant Professor: Mary Schoonmaker

### **Department of Sport Management and Business Law Faculty**

Professor: Sharienne Walker, Chair

Professors: Daniel Covell, Harvey Shrage

Associate Professors: Curt Hamakawa, James Masteralexis

#### **Special Academic Opportunities**

##### **Business Honors Program**

The College of Business provides academically qualified and motivated students with the opportunity to distinguish their academic career through participation in the Business Honors Program. Business Honors courses are distinguished by the type of work required, pace of study, and opportunities for broader consideration of core course themes. In addition, Business Honors courses emphasize critical and independent thinking to produce creative applications of ideas.

##### **Admission**

Entering College of Business freshmen with a minimum high school GPA of 3.5 and SAT scores of 1100 (or an ACT score of 24) are automatically eligible for the College of Business Honors Program. These students will receive an invitation from the Director of the Honors Program. Admission decisions will be made by the Honors Committee so that students may be registered for the first honors course during Summer Orientation and Registration Program (SOAR).

##### **Requirements**

To receive the College of Business Honors designation on their transcript, a student must:

1. Complete 18 credits of honors courses: 12 of these 18 credits must be taken from honors courses in the College of Business; 6 of these 12 Business honors credits must be at the 300 or 400 level.
2. Complete an honors project (HONB 495) as approved and overseen by the Honors Committee in the College of Business. **Global Scholars Program**

Recognizing the importance of a global perspective to the conduct of business today, the College of Business provides enhanced opportunities for its students to develop both intercultural competence and an expanded worldview. The Global Scholars program, which integrates intercultural course work and experiences, is open to students in any business major. Those students who satisfactorily complete all requirements will receive the Global Scholar designation on their University transcript and at Commencement.

To receive the College of Business Global Scholar designation, a student must complete:

1. The Global Perspectives Inventory (GPI), which measures how a student thinks, views her/himself as a person with a cultural heritage, and relates to others from other cultures. The GPI generally is taken in MAN 101 or by arrangement for students who enter the College after the freshman year.
2. BUS 210 Living and Learning Abroad (1 credit) – generally taken in the sophomore year, this course is designed to prepare students to meet the challenges of studying or working abroad. Must be taken prior to or concurrently with the required study abroad experience (see #3 below).

3. Study or work abroad experience: A minimum of 6 credits of academic course work taken outside the United States in one or more international study experiences. This may be accomplished through participation in the Sophomore Experience Abroad program, a semester abroad via one of the College's international exchange partnerships or programs offered through the University's Study Abroad Office, or a combination of Seminar Abroad courses involving travel/study opportunities with Western New England faculty and completed during summer or winter breaks.

4. Global awareness course work: Six (6) credits of foreign language, world geography, or international relations taken at the University level.

5. BUS 411 Global Scholars Capstone Seminar (2 credits) in the senior year, which includes a Global Scholars presentation to members of the College of Business Advisory Board. This requirement may be aligned with the Honors Program and/or major program requirements.

Students interested in participating in the Global Scholars Program should contact the Global Scholars Coordinator for more information.

#### **Dual Majors**

With just two additional courses, students can pursue a dual major in these disciplines:

Accounting/Finance

Arts & Entertainment Management/Marketing

International Business/Finance

International Business/Marketing

Sport Management/Marketing

#### **ERP Certificate with SAP**

Students can earn a ERP certificate by taking three SAP core courses. This can be done within the normal College of Business requirements.

### **College of Business Core Requirements (83 credits)**

The following courses are required of all business majors and include University-wide requirements. All are three credit courses unless otherwise noted.

#### **Degree Requirements**

##### **Business Courses (39 credits)**

BUS 101	First Year Business Seminar	3 cr.
BIS 102	Problem Solving with Bus Tools	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business	3 cr.

	Information Systems	
AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
		<b>Subtotal: 39</b>

\*BUS 101: Required of all entering freshman and transfer students with fewer than 27 credit hours. Transfer students with 27 or more credit hours take a general elective in its place.

\*\*BL 201: For Sport Management majors, BL 360 replaces this requirement. For Arts and Entertainment majors, BL 350 replaces this requirement.

**Non-Business Courses (44 credits)**

ENGL 132	English Composition I	3 cr.
ENGL 133	English Composition II	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
	And	
QR 112	Quantitative Reasoning for Business	3 cr.
EC 111	Principles of Microeconomics	3 cr.
SCI xxx	Two Lab Science, or One Lab Science and One Natural Science	6 cr.
EC 112	Principles of Macroeconomics	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
HIST XXX	Historical Perspective	3 cr.

COMM 100	Principles of Communication	3 cr.
PH 211	Business Ethics	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 44**

ENGL 132-133: Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206 Business Writing in the sophomore year

Natural Science Perspective: Two Physical or Biological Science lab choices of: Biology, Chemistry, Geology, Meteorology, or Physics, or one lab choice and one Natural Science Perspective without a lab component (6 cr.)

PEHR: 151, PEHR 153 - PEHR 159: Not required for off-campus location or BBA degree programs

Note: MATH 100 Algebra Fundamentals is available for students who have a math deficiency. This course is accepted as a general elective credit counted toward graduation.

Students in BBA program may substitute two College Math courses for Math 111 - MATH 112 or MATH 123 - MATH 124; one non-lab science for the two lab sciences; and one humanities elective for CUL XXX.

If CUL XXX does not include the aesthetic perspective (CA), a general elective must be selected to satisfy that requirement.  
Subtotal: 83

Nonbusiness majors may apply no more than 25% of business coursework to their graduation requirements.

Total Credit Hours: 83

**Five-year Bachelor/MBA Program**

This program allows full-time undergraduate students in the College of Business to accelerate the completion of the bachelor’s and master’s degrees in business. Students can earn the popular and valuable Master of Business Administration degree with just one additional year of study. A detailed program of study can be found at Five-year Bachelor/MBA Program (p. 184).

**Program Prerequisites:**

Satisfied by completing the undergraduate business core (BIS 220, EC 111, AC 201, and FIN 214) courses with a “B” average or better with no grade below a C.

**Program Application and Admission Requirements:**

This program seeks students who have excelled in their undergraduate studies. Applicants must:

1. Earn an overall GPA of 3.0.
2. Complete the College of Business Graduate Studies application, and essays for the MBA program. All application materials should be submitted to the Admissions Office.
3. Forward scores for the Graduate Management Admission Test (GMAT) to the Admissions Office. Students should seek to score 500 or higher on the GMAT. Students may also apply for a

GMAT waiver based on a cumulative GPA of 3.3 or higher at the time of graduation.

Applicants may take up to two graduate courses in their senior year prior to admission. A third graduate course may be taken during the senior year after a student has been admitted.

### Five-year Bachelor/MSA Program

This program allows undergraduate full time accounting majors in the College of Business to accelerate the completion of both the bachelor's and master's degrees in Accounting. Students can earn the Master of Science in Accounting degree within five years of entry as an undergraduate. A detailed program of study can be found at Five-year Bachelor/MSA Program (p. 186).

#### Program Prerequisites:

Satisfied after completing the following undergraduate courses: AC 201, AC 202, AC 305, AC 306, AC 309, AC 330, AC 413, AC 419 AND FIN 214, with a "B" average or better and no grade below a "C". Program Application and Admission Requirements:

1. Earn an overall GPA of 3.0.
2. Complete the College of Business Graduate Studies application and essays for the MSA program. All application materials should be submitted to the Admissions Office.
3. Forward scores for the Graduate Management Admission Test (GMAT) to the Admissions Office. Students should seek to score 500 or higher on the GMAT. Students may also apply for a GMAT waiver based on a cumulative GPA of 3.3 or higher at the time of graduation.

Applicants may take up to two graduate courses in their senior year. A third graduate course may be taken during the senior year after a student has been admitted.

### Five-year Bachelor/MBA and Five-year Bachelor/MSA Programs – Early Acceptance

Students who have achieved a high level of success in their high school academic performance may apply for conditional early acceptance into either program as freshmen. To qualify for this opportunity, applicants typically have earned a high school GPA of 3.5 or higher, and a combined verbal and quantitative sections score of 1200 or higher on the SAT. Once admitted, students must

1. Maintain an overall GPA of 3.3 or higher, after freshman year.
2. Successfully complete an undergraduate degree.
3. Earn a "B" average or better with no grade below a "C" in the prerequisite courses.

A detailed program of study can be found at Five-year-Bachelor MBA Program-Early Acceptance (p. 185), or Five-year Bachelor MSA Program-Early Acceptance (p. 186).

## Accounting Major

### General Information

The course of study for accounting majors is designed to provide the professional education needed for careers in private industry, government, public accounting, or not-for-profit organizations. The combination of training in accounting, business subjects, and the arts and sciences prepares the student for potential advancement to positions of managerial responsibility.

Students desiring to prepare for the CPA examination are advised to consult the Accountancy Board of the state of their choice to ensure that they will be able to meet the educational requirements of that jurisdiction. Students have the opportunity to continue in a Master of Science in Accounting program designed to meet the 150-hour academic requirement that has been adopted by most states. Accounting majors who desire preparation to meet the requirements of a particular state may, if necessary, modify their program of study in conference with, and approval of, their department chair.

### Career Preparation

In order to help students understand careers available to Accounting majors, faculty in the Accounting department designed activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished in First Year Seminar where students are introduced to accounting career opportunities.
2. Career Investigation in the sophomore year courses includes classroom assignments in AC 201 and AC 202 and Meet the Firms Night.
3. Career Determination in the junior year engages students in résumé and cover letter writing and mock interviews.
4. Career Implementation in the senior year includes examination of professional certifications.

### Career Opportunities

Accounting majors find positions in national and regional public accounting, corporate and financial accounting, taxation, internal audit, and governmental and nonprofit accounting. The major provides an excellent foundation for legal careers and advanced business degrees.

### Accounting and Finance Faculty (p. 103)

### Program Learning Goals

Having completed a major in Accounting, the student will have the ability to:

1. Understand the accounting conceptual framework as it relates to the measurement and reporting of financial information.
2. Understand the use of accounting information in the planning, controlling, and decision-making processes in organizations.
3. Understand internal control objectives and auditing standards and practices.
4. Understand the basic concepts of federal taxation.
5. Understand issues associated with the design and implementation of accounting information systems.

See Core Requirements for all Business Majors (p. 104) and General University Requirements (p. 28)

## Degree Requirements

Required Accounting courses (21 credit hours)

AC 305	Financial Reporting II	3 cr.
AC 306	Financial Reporting III	3 cr.
AC 309	Cost Accounting	3 cr.
AC 330	Accounting Information Systems	3 cr.

AC 407	Financial Reporting IV	3 cr.
AC 413	Fundamental of Individual Tax	3 cr.
AC 419	Auditing and Assurance Services	3 cr.

**Subtotal: 21**

Other required courses (6 credit hours)

EC 311	Money and Banking	3 cr.
COMM 320	Small Group Communication	3 cr.
	or	
COMM 340	Business Communication	3 cr.

**Subtotal: 6**

Electives (12 credit hours)

GEN XXX	General Elective	3 cr.
GEN XXX	General Electives	9 cr.

**Subtotal: 12**

Total Credit Hours: 39

**Accounting Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
COMM 100	Principles of Communication	3 cr.
QR 112	Quantitative Reasoning for Bus.	3 cr.
	And	
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
	And	

PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

AC 305	Financial Reporting II	3 cr.
AC 309	Cost Accounting	3 cr.
LAB XXX	Laboratory Science	3 cr.
BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
	And	
COMM 320	Small Group Communication	3 cr.
	or	
COMM 340	Business Communication	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

EC 311	Money and Banking	3 cr.
AC 419	Auditing and Assurance Services	3 cr.

AC 306	Financial Reporting III	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

AC 330	Accounting Information Systems	3 cr.
GEN XXX	General Electives	9 cr.
BIS 310	Quality and Operations Mgt.	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.

**Subtotal: 15****Senior Year - Spring Semester**

AC 413	Fundamental of Individual Tax	3 cr.
BUS 423	Product Dev. and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
AC 407	Financial Reporting IV	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.

**Subtotal: 15**

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of course work in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: all AC courses as well as FIN 214.

**Arts and Entertainment Management Major****General Information**

The Arts and Entertainment Management program emphasizes the business side of this creative industry. Students majoring in Arts and Entertainment Management engage in a course of academic study that prepares them for a management career in creative and cultural organizations. The Arts and Entertainment Management major appreciates the unique blend of creative aesthetics and business sensibilities requisite to success in this industry and is able to mobilize resources to meet the mission, goals, and objectives of both the arts or entertainment organization and its stakeholders. The Arts and Entertainment Management program provides opportunities for students to develop the knowledge and skills they need to manage in for-profit or nonprofit creative and cultural environments. Students are provided with industry-based learning opportunities and are

actively involved in industry-based projects both in the classroom and beyond.

**Career Preparation**

In order to help understand careers available to Arts and Entertainment Management majors, faculty in the Department of Management design activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished through a speaker series.
2. Career Investigation in the sophomore year includes classroom assignments in AEM 250 that look at opportunities in arts and entertainment industry segments.
3. Career Determination in the junior year is accomplished using projects in AEM 350.
4. Career Implementation in the senior year is addressed through instruction in networking and arts and entertainment job search skills in AEM 465 combined with internships and field experiences.

**Career Opportunities**

The Arts and Entertainment Management major is prepared to assume positions of responsibility in a wide variety of arts and entertainment organizations in the private and public sectors. Graduates may work in the following settings: arts festivals, arts foundations, art galleries and historical museums, community arts centers or community theaters, dance companies, educational institutions, film and television companies, opera companies, orchestra companies, regional theaters, and television stations.

**Management Faculty** (p. 103)**Program Learning Goals**

Having completed a major in Arts and Entertainment Management, the student will have the ability to:

1. Apply managerial competencies to arts and entertainment organizations.
2. Understand internal and external factors that shape arts and entertainment in a culture.
3. Achieve competency in arts and entertainment marketing including fundamental aspects of arts and entertainment products, markets, consumer research, sponsorship, and promotion.
4. Achieve competency in arts and entertainment finance including key elements of budgeting, accounting, public/private financing, and revenue development.
5. Achieve competency in legal aspects of arts and entertainment including state/federal legislation, liability, risk management, contracts, intellectual property, and collective bargaining.
6. Achieve competency in the economics of arts and entertainment including fundamental concepts of supply and demand, economic forecasting, and economic impact assessment.
7. Understand the governance and regulation of arts and entertainment organizations.
8. Understand the key elements of ethical behavior in arts and entertainment organizations including consideration of both personal and professional ethical systems in arts and entertainment organization management.

**Practicum, Internship, and Nonprofit Board Field Experience Options**

Students majoring in Arts and Entertainment Management are afforded three different kinds of opportunities to apply their classroom learning to field experiences.

All Arts and Entertainment Management majors complete a three-credit Practicum course that provides students with the opportunity to plan, organize, and lead various elements of on-campus arts or entertainment-related programming. This may include productions of the Stageless Players, exhibitions at the campus Art Gallery, or similar. Students gain hands-on experience in project management, event operations, personnel management, promotion, and communications while working directly under the supervision of Western New England University staff. The course combines classroom instruction with on-campus arts or entertainment experience.

Arts and Entertainment Management majors who meet the University’s academic requirements for internships (junior standing and grade point average of 2.5 or above overall and in the major) are eligible for the three-credit Internship in Arts and Entertainment Management.

Arts and Entertainment Management majors with a grade point average of 3.0 and above are eligible to apply for the Nonprofit Board Field Experience program. The Nonprofit Board Field Experience is a two-semester activity designed to provide outstanding business students with exposure to the types of decisions made by boards of directors in non-profit organizations. Placement for Arts and Entertainment Management majors is with non-profit arts or entertainment organizations.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

**Major Requirements**

Required Arts and Entertainment Management, Management, and Business Law Courses (24 credit hours)

AEM 250	Introduction to Arts & Entertainment Organizations	3 cr.
BL 308	Labor Management Relations	3 cr.
BL 350	Business Law for Arts and Entertainment	3 cr.
MAN 201	Interpersonal Skills for Leading	3 cr.
MAN 323	Human Resource Management	3 cr.
AEM 350	Arts and Entertainment Practicum	3 cr.
AEM 355	Arts and Entertainment Venue Operations	3 cr.
AEM 465	Seminar in Arts and Entertainment Management	3 cr.

**Subtotal: 24**

Other required courses (3 credit hours)

EC 350	Economics of Arts and Entertainment	3 cr.
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**Subtotal: 3**

Electives (15 credit hours)

AEM 480	Internship in Arts and Entertainment Management	3 cr.
	or	
GEN XXX	General Elective	3 cr.
GEN XXX	General Electives	12 crs.

**Subtotal: 15**

Total Credit Hours: 42

**Arts and Entertainment Management Suggested Sequence of Courses**

**Degree Requirements**

**Freshman Year - Fall Semester**

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
COMM 100	Principles of Communication	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

AC 201/ HONB 203	Financial Reporting	3 cr.
MK 200/ HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
AEM 250	Introduction to Arts & Entertainment Organizations	3 cr.

**Subtotal: 15****Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
BL 350	Business Law for Arts and Entertainment	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15****Junior Year - Fall Semester**

MAN 201	Interpersonal Skills for Leading	3 cr.
GEN XXX	General Elective	3 cr.
LAB XXX	Laboratory Science	3 cr.
BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.

**Subtotal: 15**

MAN 240: preferred for Arts and Entertainment majors

**Junior Year - Spring Semester**

GEN XXX	General Elective	3 cr.
MAN 323	Human Resource Management	3 cr.
AEM 350	Arts and Entertainment Practicum	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

BL 308	Labor Management Relations	3 cr.
AEM 355	Arts and Entertainment Venue Operations	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.

**Subtotal: 15****Senior Year - Spring Semester**

BUS 450	Business Strategy	3 cr.
EC 350	Economics of Arts and Entertainment	3 cr.
GEN XXX	General Elective	3 cr.
AEM 465	Seminar in Arts and Entertainment Management	3 cr.
AEM 480	Internship in Arts and Entertainment Management	3 cr.
	or	
GEN XXX	General Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Students who wish to specialize in Music, Television/Film, Theater, or Visual Arts should consult with their advisor in order to allocate non-business electives appropriately.

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

Non-Business electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows:

All AEM and BL courses, MAN 201 and MAN 323, EC 350, and BUS 450.

**Arts and Entertainment Management Specialization**

Arts and Entertainment Management students may elect to specialize in one of four areas by completing 12 credit hours of non-business elective courses exclusively in Music, Television/Film, Theater, or Visual Arts. Students interested in this option should consult with their advisor or the Management Department Chair.

## Business – BBA Online Option for Part-Time students

### General Information

The Online Bachelor in Business Administration (BBA) is a part-time degree completion program for part-time students. The BBA degree program provides students with broad exposure to the functional areas of business administration. Students will develop functional competency necessary for career advancement.

In order to be considered for admission, students must transfer in at least 30 credit hours. Full-time Western New England University students are not eligible to enroll in this program.

### Career Opportunities

BBA majors are equipped to advance into positions of increased responsibility in the business world. In addition to seeking career advancement, students are able later to specialize either by entering graduate school or, more typically, by participating in training programs provided by employers.

### Faculty (p. 103)

Faculty in this major come from all departments in the College of Business.

### Degree Program Learning Goals

Having completed the BBA, the student will have the ability to:

1. solve business problems by thinking critically and applying principles of effective decision making;
2. generate, evaluate, and select alternatives consistent with standards of ethical behavior;
3. perform well on teams, to provide leadership, to contribute and collaborate to achieve team goals;
4. communicate professionally, to present analyses, recommendations, and plans clearly, in writing;
5. apply information technology concepts and tools to support business problem solving and decision making;
6. recognize the dynamic domestic and international factors that shape and transform the global business environment; and
7. to understand the fundamental concepts from the business disciplines.

## Degree Requirements

### Core Requirements: 78 credit hours

#### Business Courses: 42 Credits

BIS 102	Problem Solving with Business Tools	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.

AC 202	Managerial Accounting	3 cr.
FIN 214	Introduction to Finance	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
BUS 326	Business Planning for New Ventures	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
BIS 310	Quality and Operations Management	3 cr.
BL 424	Business Law for Human Resource Management	3 cr.
MAN 323	Human Resource Management	3 cr.
BUS 450	Business Strategy	3 cr.

**Subtotal: 42**

#### Non-Business Courses: 36 Credits

ENGL 132	English Composition I	3 cr.
ENGL 133	English Composition II	3 cr.
HUM XXX	Humanities Elective	3 cr.
MATH XXX	College-level Math	6 cr.
EC 111	Principles of Microeconomics	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
HIST XXX	History Perspective	3 cr.
COMM 100	Principles of Communication	3 cr.
SCI XXX	Science Requirement	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
	And	
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.

**Subtotal: 36**

#### Electives: 42 credit hours

GEN XXX	General Electives	9 cr.
GEN XXX	General Electives	24 cr.
GEN XXX	General Electives	9 crs

**Subtotal: 42**

Total Credit hours required for graduation: 120.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General Electives must be selected in such a way as to ensure that all "perspectives of understanding" requirements have been satisfied.

## Business Analytics and Information Management

### General Information

The Business Analytics and Information Management (BAIM) curriculum empowers students with contemporary business analytics and business intelligence tools and techniques by making them better decision-makers in business. Business analytics and information management skills are applicable to all industries such as finance, retail, healthcare, sports and entertainment, to name a few. Different functions in an organization such as management, marketing, and sales need the business analytics capabilities. Business intelligence, data mining, predictive analytics, and visual analytics are some of the topics covered by the major.

### Career Preparation

To emphasize the career options best suited for BAIM majors, faculty in the BIS department will provide in-class activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career exploration in the freshman year is accomplished in the First Year Seminar and BIS 102 – Problem Solving with Business Tools course where students are introduced to business analytics career opportunities;
2. Career investigation in the sophomore year courses includes assignments to investigate business analytics jobs in BIS 202 – Introduction to Business Information Systems and BIS 221 – Business Statistics for Business Analytics and guest speakers;
3. Career determination in the junior year engages students in a mentor plan and interaction with local technology experts; and
4. Career implementation in the senior year includes internships. Students are exposed to tasks, tools and technology in professional job settings with internships.

### Career Opportunities

As an emerging field, there is a high demand for business professionals with business analytics skills. While Department of Labor forecasts “bright outlook” for the jobs in business analytics, McKinsey Global Institute estimates “a shortage of 140,000 to 190,000 people with deep analytical skills as well as 1.5 million managers and analysts to analyze big data and make decisions” in the United States alone.

Banking, retail, insurance, manufacturing, healthcare, and telecommunications are some of the industries utilizing business analytics solutions. Since understanding, planning, managing, and predicting financial and operation performance is a common process, all industries need business professionals with business analytics skills.

### Business Analytics and Information Systems Faculty (p. 103)

### Program Learning Goals

The Business Analytics and Information Management major has four goals. Graduates from BAIM will be able to do the following tasks to support decision making and problem solving in businesses:

1. Identify, collect and analyze data. Make business decisions based on the analysis.

2. Develop, deploy and improve decision-making and problem solving processes with models.

3. Utilize relevant techniques to address Business Analytics needs of organizations.

4. Use tools and technology to support decision-making and problem solving in businesses.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

## Degree Requirements

Required BA courses (18 credit hours)

BIS 230	Business Analytics Theory & Practice	3 cr.
BIS 321/IT 300	Database Management Systems	3 cr.
BIS 330	Applied Data Mining	3 cr.
BIS 412	Business Analytics with SAP	3 cr.
BIS 445	Business Analytics Project	3 cr.
BIS 450	Multivariate & Big Data Analysis	3 cr.

**Subtotal: 18**

Electives (21 credit hours)

BIS 480	Internship in Business Information Systems	3 cr.
	or	
GEN XXX	General Elective	3 cr.
	And	
BIS 3XX/4XX	Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Electives	12 crs.

**Subtotal: 21**

Subtotal: 39

Total Credit Hours: 39

## Business Analytics and Information Management Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year- Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST 1XX	Historical Perspective	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
	And	

MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
COMM 100	Principles of Communication	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
	And	
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
	And	
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16**

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BIS 230	Business Analytics Theory & Practice	3 cr.

**Subtotal: 15**

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

**Junior Year - Fall Semester**

BUS 312/HONB	Business Processes and	3 cr.
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312	Enterprise Resource Planning with SAP	
BIS 321/IT 300	Database Management Systems	3 cr.
GEN XXX	General Elective	3 cr.
LAB XXX	Laboratory Science	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

BIS 330	Applied Data Mining	3 cr.
BIS 312	Quality and Operations Management with SAP	3 cr.
CUL XXX	Cultural Perspective	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

BIS 412	Business Analytics with SAP	3 cr.
BIS 445	Business Analytics Project	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
BIS 450	Multivariate & Big Data Analysis	3 cr.
BIS 480	Internship in Business Information Systems	3 cr.
	or	
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Total credit hours required for graduation: 122

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all “perspectives of understanding” requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: all BIS courses or their equivalents.

## Entrepreneurship Major

### General Information

The Entrepreneurship curriculum prepares students to develop and operate their own business organization or work as entrepreneurs within a larger organization. The principles and techniques students majoring in Entrepreneurship will learn will be equally applicable to entrepreneurial opportunities in business, government, social, and academic organizations. The Entrepreneurship major is best suited for students who have the ambition and aptitude to become involved in the activities and processes associated with business start-up and expansion. Students majoring in Entrepreneurship will learn the importance of the following skill sets: task commitment and determination, organizational leadership, team-building, problem solving and solution providing, tolerance for risk and uncertainty, creativity, self-reliance, and the ability to initiate change and improvement in the business environment. Entrepreneurship is a cross-disciplinary major based on student learning-by-doing, faculty team teaching, and the creation of innovations by small teams.

### Career Preparation

In order to help Entrepreneurship majors understand careers available to them, faculty design assignments and class projects to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year occurs in a First Year Seminar course where students are introduced to entrepreneurship career opportunities;
2. Career Investigation in the sophomore year courses include classroom assignments and projects in ENTR 251;
3. Career Determination in the junior year is accomplished in ENTR 260 and in MK 301 where students complete a career assignment; and
4. Career Implementation in the senior year includes a project in BUS 423 where students work on a multidisciplinary team, which simulates the work environment to create a new product.

### Career Opportunities

The Entrepreneurship major will help prepare students for entrepreneurial and intrapreneurial career paths. Specific job titles for students completing the Entrepreneurship curriculum would include marketing managers; product, brand or program managers; customer services managers; planning or innovation managers; and other positions involving the creation and management of innovation.

### Faculty (p. 103)

Faculty members in the Entrepreneurship major are from all departments in the College of Business.

### Program Learning Goals

Having completed a major in entrepreneurship, the student will have the ability to:

1. Demonstrate the ability to recognize, shape, select, and create ideas that will lead to the development of feasible business models and new ventures.

2. Demonstrate the ability to lead and communicate the selling of innovations to key stakeholders.

3. Understand how to source, secure, and retain innovation resources for new ventures during the early phases of development.

4. Understand how to manage an entrepreneurial team and evaluate and mitigate innovation challenges during the process of start-up phases of an entrepreneurial organization.

See Core Requirements for All Business Majors (p. 104) and General College Requirements (p. 28) (83 credits hours).

## Degree Requirements

### Required Entrepreneurship courses

ENTR 251	Entrepreneurship and Innovation	3 cr.
ENTR 326	Venture Feasibility	3 cr.
MK 301	Buyer Behavior	3 cr.
FIN 330	Financing Entrepreneurial Ventures	3 cr.
BL 403	Business Law for Entrepreneurs	3 cr.
BUS 423	Product Development and Innovation	3 cr.

**Subtotal: 18**

### Entrepreneurship/Marketing Electives (6 credits)

Choose from the following courses:

MK 370	Social Media Marketing	3 cr.
ENTR 260	Marketing for Entrepreneurs	3 cr.
ENTR 380	Global Entrepreneurship	3 cr.
ENTR 480	Internship in Entrepreneurship	1-3 cr.
MAN 430/ENTR 430	Family Business Management	3 cr.

**Subtotal: 6**

### General Electives (15 credits)

GEN XXX	General Electives	15 cr.
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**Subtotal: 15**

Total Credit Hours: 39

## Entrepreneurship Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year - Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST XXX	Historical Perspective	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.

	And		
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.	
	or		
BIS 102	Problem Solving with Business Tools	3 cr.	
PEHR 151	Personal Health and Wellness	1 cr.	
		<b>Subtotal: 16</b>	

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.	
COMM 100	Principles of Communication	3 cr.	
QR 112	Quantitative Reasoning for Business	3 cr.	
	And		
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.	
	or		
BIS 102	Problem Solving with Business Tools	3 cr.	
	And		
PSY 101	Introduction to Psychology	3 cr.	
	or		
SO 101	Introduction to Sociology	3 cr.	
PEHR 153-199	Lifetime Activity	1 cr.	
		<b>Subtotal: 16</b>	

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.	
MK 200/HONB 200	Principles of Marketing	3 cr.	
BIS 202	Introduction to Business Information Systems	3 cr.	
EC 111	Principles of Microeconomics	3 cr.	
BL 201/HONB 201	Introduction to Business Law	3 cr.	
		<b>Subtotal: 15</b>	

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.	
FIN 214	Introduction to Finance	3 cr.	
EC 112	Principles of Macroeconomics	3 cr.	
PH 211	Business Ethics	3 cr.	
	or		
MAN 240	Business and Society	3 cr.	
		<b>Subtotal: 15</b>	

**Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.	
GEN XXX	General Elective	3 cr.	
MK 301	Buyer Behavior	3 cr.	
ENTR 251	Entrepreneurship and Innovation	3 cr.	
LAB XXX	Laboratory Science Requirement	3 cr.	
		<b>Subtotal: 15</b>	

**Junior Year - Spring Semester**

BIS 310	Quality and Operations Management	3 cr.	
	or		
BIS 312	Quality and Operations Management with SAP	3 cr.	
ENTR 326	Venture Feasibility	3 cr.	
CUL XXX	Cultural Perspective	3 cr.	
ILP XXX	Integrated Liberal Professional Perspective	3 cr.	
BL 403	Business Law for Entrepreneurs	3 cr.	
		<b>Subtotal: 15</b>	

**Senior Year - Fall Semester**

FIN 330	Financing Entrepreneurial Ventures	3 cr.	
BUS 423	Product Development and Innovation	3 cr.	
GEN XXX	General Elective	3 cr.	
GEN XXX	General Elective	3 cr.	
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.	
		<b>Subtotal: 15</b>	

**Senior Year - Spring Semester**

ENTR/MK XXX	Entrepreneurship/Marketing Elective	3 cr.	
GEN XXX	General Elective	3 cr.	
GEN XXX	General Elective	3 cr.	
ENTR/MK XXX	Entrepreneurship/Marketing Elective	3 cr.	
ENTR 480	Internship in Entrepreneurship	1-3 cr.	
		<b>Subtotal: 13-15</b>	

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: all ENTR courses or their equivalents.

Total Credit Hours: 120-122

## Finance Major

### General Information

Courses in Finance provide the professional education for a wide spectrum of careers in finance. Accounting, economics, quantitative analysis, and studies of the financial environment are integrated to form both the skills required for traditional financial functions and the ability to stay abreast of a rapidly evolving technological environment.

By judicious selection of elective courses, the student, with the assistance of an academic advisor, can chart a course of specialization in the areas of investment management, personal financial management, credit analysis, or corporate financial management.

Students are encouraged to participate in internships as part of the Finance major.

### Career Preparation

In order to help students understand careers available to Finance majors, faculty in the Department of Finance designed activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished in First Year Seminar where students are introduced to accounting career opportunities;
2. Career Investigation in the sophomore year courses includes classroom assignments in FIN 214;
3. Career Determination in the junior year engages students in résumé and cover letter writing and mock interviews; and
4. Career Implementation in the senior year includes examination of professional certifications.

### Career Opportunities

Finance majors find positions in brokerage firms, personal financial planning, banking, corporate financial management, international finance, underwriting, portfolio management, and insurance. Students are encouraged to take professional exams after graduation and to earn advanced business degrees.

Faculty (p. 103)

### Program Learning Goals

Having completed a major in finance, the student will have the ability to:

1. understand and synthesize the basic concepts and theories of finance;
2. use computer-based tools to perform financial analysis and assist with financial decisions;
3. understand the monetary system, monetary policy, and regulatory environment;
4. demonstrate knowledge of the investment environment, and the global and the domestic financial markets; and.

5. demonstrate the ability to determine strategies for corporate decision-making based on an accurate assessment of risks and rewards.

See Core Requirements for All Business Majors (83 credit hours) and General University Requirements.

## Degree Requirements

Required Finance courses (15 credit hours)

FIN 312	Financial Markets and Institutions	3 cr.
FIN 320	Intermediate Corporation Finance	3 cr.
FIN 350	Advanced Corporation Finance	3 cr.
FIN 417	Investments	3 cr.
FIN 418	Security Analysis	3 cr.
		<b>Subtotal: 15</b>

Other required courses (3 credit hours)

EC 311	Money and Banking	3 cr.
or		
EC 215	Intermediate Macroeconomics	3 cr.
		<b>Subtotal: 3</b>

Electives (21 credit hours)

FIN or AC 3XX-4XX	Elective	6 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Electives	9 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 21</b>

Total Credit Hours: 39

## Finance Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year- Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
or		
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
or		
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Bus	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
FIN 312	Financial Markets and Institutions	3 cr.
FIN 320	Intermediate Corporation Finance	3 cr.

GEN XXX	General Elective	3 cr.
LAB XXX	Laboratory Science	3 cr.

**Subtotal: 15**

**Junior Year - Spring Semester**

FIN 350	Advanced Corporation Finance	3 cr.
FIN or AC 3XX-4XX	Elective	6 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CUL XXX	Cultural Perspective	3 cr.

**Subtotal: 15**

**Senior Year - Fall Semester**

FIN 417	Investments	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

**Senior Year - Spring Semester**

BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
FIN 418	Security Analysis	3 cr.
EC 311	Money and Banking	3 cr.
	or	
EC 215	Intermediate Macroeconomics	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Total credit hours required for graduation: 122

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300/400 level courses. All students must take 12 hours of upper level (300/400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows:

All FIN and AC courses that are applied toward the degree.

## General Business Major

### General Information

The program in General Business provides students with a broad exposure to the functional areas of business administration while permitting wide latitude in the selection of additional courses according to individual interests. Students will develop the skills and competencies necessary for success across the broad spectrum of business organizations.

### Career Preparation

In order to help students understand careers available to General Business majors, faculty design activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished in MAN 101 through guest speakers from local businesses;
2. Career Investigation in the sophomore year courses includes personality assessment linked to career choices in MK 200;
3. Career Determination in the junior year engages students in resume review and mock interviews in MAN 323; and
4. Career Implementation in the senior year involves a required internship and participation in discussion of career requirements and insights from internship placements in BUS 480.

### Career Opportunities

General Business majors are prepared to enter the business world in entry level positions in corporations, agencies, or small business. Since their background is broad, they are later able to specialize either by entering graduate school or, more typically, by participating in training programs provided by employers.

For students interested in teaching business at the secondary school level, see the program of study listed under the major entitled Secondary Education-General Business Major (p. 62).

### Faculty (p. 103)

Faculty in this major come from all departments in the College of Business.

### Program Learning Goals

Having completed a major in General Business, the student will have the ability to:

1. understand and synthesize the basic concepts and theories of each functional area of a business that contribute to its overall success;
2. understand the key elements of professionalism and ethical conduct in businesses and other organizations;
3. demonstrate skill and competency in problem solving, decision making, and managing conflict; and
4. demonstrate skill and competency in establishing goals and leading people to work together toward the attainment of those goals.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

## Degree Requirements

Required Management and Business Law courses (12 credit hours)

BL 308	Labor Management Relations	3 cr.
BL 424	Business Law for Human Resource Management	3 cr.
MAN 323	Human Resource Management	3 cr.
BUS 480	Internship in Business	3 cr.
		<b>Subtotal: 12</b>

Electives (27 credit hours)

GEN XXX	General Electives	12 cr.
GEN XXX	General Electives	15 cr.
		<b>Subtotal: 27</b>

Total Credit Hours: 39

## General Business Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year- Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
		or
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
		or
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 16</b>

#### Freshman Year - Spring Semester

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
		or
BIS 102	Problem Solving with Business Tools	3 cr.

PSY 101	Introduction to Psychology or	3 cr.
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Intro to Business Info Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BUS 211	Developing Intercultural Competence	2 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society or	3 cr.
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 326	Bus Planning for New Ventures or	3 cr.
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LAB XXX	Laboratory Science	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

BL 308	Labor Management Relations	3 cr.
MAN 323	Human Resource Management	3 cr.
GEN XXX	General Elective	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BL 424	Business Law for Human Resource Management	3 cr.
BIS 310	Quality and Operations Management or	3 cr.
BIS 312	Quality and Operations Management with SAP	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

BUS 423	Product Development and Innovation or	3 cr.
BUS 450	Business Strategy	3 cr.
BUS 480	Internship in Business	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way as to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: All MAN and BL courses as well as BUS 450.

\*The General Business major is required to complete an internship in any of the areas represented by the College of Business.

**Secondary Education General Business Major**

**Degree Requirements**

**Freshman Year - Fall Semester**

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
HIST XXX	Historical Perspective	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
And		

MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
	And	
BIS 102	Problem Solving with Bus Tools	3 cr.
	or	
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.

**Subtotal: 16****Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
COMM 100	Principles of Communication	3 cr.
PSY 101	Introduction to Psychology	3 cr.
ED 120	Introduction to Education	1 cr.
QR 112	Quantitative Reasoning for Bus	3 cr.
BIS 102	Problem Solving with Business Tools	3 cr.
	or	
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 17****Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
ED 275	Teaching English Language Learners	3 cr.

**Subtotal: 18****Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
ED 301	Principles and Problems of Education	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15****Junior Year - Fall Semester**

BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
	or	
BUS 326	Business Planning for New Ventures	3 cr.
MAN 323	Human Resource Management	3 cr.
PH 211	Business Ethics	3 cr.
CUL XXX	Cultural Perspective	3 cr.
LAB XXX	Laboratory Science	3 cr.

**Subtotal: 15****Junior Year - Spring Semester**

PSY 304	Educational Psychology	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
BIS 210/IT 240	Foundations of Web Systems	3 cr.
BL 308	Labor Management Relations	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

ED 380	Secondary Education Topics	1 cr.
ED 403	Methods of Teaching in Secondary Schools	3 cr.
ED 409	Practicum in Secondary Teaching	9 cr.
ED 410	Secondary Practicum Seminar	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

BL 424	Business Law for Human Resource Management	3 cr.
BUS 450	Business Strategy	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
CUL XXX	Cultural Perspective	3 cr.
GEN XXX	General Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Total Credit Hours: 127

## International Business Major

### General Information

The International Business curriculum is designed for students interested in globally-focused careers in business. The program is intended to develop business knowledge and skills that specifically address the challenges and opportunities of the international context. The International Business major includes all of the core areas of business as well as directed attention to the multi-national elements of business practice including communication, economics, finance, management, and marketing. *International Business majors are encouraged to complete a dual major or minor program as the basis for enhanced entry-level opportunities.*

### Career Preparation

In order to help students understand careers available to International Business majors, faculty design assignments and class projects to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year occurs in the First Year Seminar (BUS 101) where students are introduced to international business career opportunities;
2. Career Investigation in the sophomore year includes classroom assignments and projects in INTB 251, Introduction to International Business;
3. Career Determination in the junior year is accomplished in MAN 311, MK 311 and FIN 322 where students complete career assignments; and
4. Career Implementation in the senior year is addressed through instruction in networking and job search skills in INTB 465 Seminar in International Business, combined with the required internship and other field experiences.

### Career Opportunities

Graduates will be prepared for entry into a variety of industries, with initial job placements in US firms doing business abroad; non-US firms doing business in the US; government agencies at the state, regional, or national level; or international trade or commerce associations.

### Faculty (p. 103)

Faculty members in the International Business major are from all departments in the College of Business.

### Program Learning Goals

Having completed a major in International Business, the student will have the ability to:

1. translate knowledge of the functional business areas to the international domain;
2. apply knowledge of environmental factors affecting international firms in order to make recommendations for business decisions or actions;
3. apply knowledge of international regulation and trade agreements in order to make recommendations for business decisions or actions; and
4. apply knowledge of the role of culture and communication in the management of international businesses in order to make recommendations for business decisions or actions.

See Core Requirements for All Business Majors and General University Requirements (83 credit hours)

## Major Requirements

Required International Business courses (18 credit hours)

INTB 251	Introduction to International Business	3 cr.
INTB 465	Seminar in International Business	3 cr.
INTB 480	Internship in International Business	3 cr.
MAN 311	International Management	3 cr.
MK 311	Multinational Marketing	3 cr.
FIN 322	International Finance	3 cr.
		<b>Subtotal: 18</b>

General Electives (3 credits hours)

GEN XXX	General Elective	3 cr.
		<b>Subtotal: 3</b>

Other Required Courses (9 credit hours)

COMM 348	Intercultural Communication	3 cr.
EC 371	International Monetary Economics	3 cr.
EC 372	International Trade	3 cr.
		<b>Subtotal: 9</b>

General Electives (9 credit hours)

GEN XXX	General Electives	9 cr.
		<b>Subtotal: 9</b>

Total Credit Hours: 39

## International Business Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year- Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
or		
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
or		
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
INTB 251	Introduction to International Business	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BL 201/HONB 201	Introduction to Business Law	3 cr.
BUS 326	Bus Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
MAN 311	International Management	3 cr.
MK 311	Multinational Marketing	3 cr.

LAB XXX	Laboratory Science	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

FIN 322	International Finance	3 cr.
COMM 348	Intercultural Communication	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
EC 371	International Monetary Economics	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
EC 372	International Trade	3 cr.
GEN XXX	General Elective	3 cr.
INTB 480	Internship in International Bus	3 cr.
INTB 465	Seminar in International Business	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: All MAN and BL courses as well as BUS 450 or BUS 423.

## Management and Leadership Major

### General Information

The Management and Leadership program emphasizes the knowledge, competencies, and characteristics necessary for effective leadership in meeting organizational objectives and challenges. Students undertake a wide range of academic and experiential learning opportunities to develop the proactive, critical, and creative thinking skills needed for problem-solving, communication, commitment to excellence, and personal integrity that enable them to provide effective management and leadership in work and community settings.

### Career Preparation

In order to help students understand careers available to Management and Leadership majors, faculty in the Department of Management designed activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshmen year is accomplished in MAN 101 through guest speakers from local businesses;
2. Career Investigation in the sophomore year courses includes personality assessment linked to career choices in MAN 201;
3. Career Determination in the junior year is accomplished through resume review and mock interviews in MAN 323; and
4. Career Implementation in the senior year is addressed through participation in the “RealTest” Assessment Exercise. During this daylong event, students demonstrate their management and leadership abilities and are coached by local business people and alumni volunteers.

### Career Opportunities

Management and Leadership majors are prepared to embark on a career path with the promise of increasing responsibility in a rapidly changing global environment.

Graduates work in a wide range of organizations and positions that include: manufacturing, corporate business, financial services, small business, hospitality industry, government, and public administration. Many enroll in graduate programs or law school. Our focus is on preparation for career-entry and our successful graduates typically enter businesses and organizations in entry-level professional positions.

### Management Faculty (p. 103)

### Program Learning Goals

Having completed a major in Management and Leadership, the student will have the ability to:

1. understand and synthesize the basic concepts and theories of management and leadership that serve as a basis for high performance;
2. apply theories and concepts of management and leadership to develop strategies for improving the performance of people and processes in organizations;
3. perform well on teams, provide leadership, contribute and collaborate to achieve team goals;
4. demonstrate skill and competency in developmental performance feedback; and

5. apply theories and concepts of management and leadership to develop strategies for dealing with organizational and interpersonal conflict.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

### Degree Requirements

Required Management and Business Law courses (18 credit hours)

BL 308	Labor Management Relations	3 cr.
BL 424	Business Law for Human Resource Management	3 cr.
MAN 201	Interpersonal Skills for Leading	3 cr.
MAN 323	Human Resource Management	3 cr.
MAN 370	Project Management	3 cr.
MAN 466	Seminar in Management and Leadership	3 cr.

**Subtotal: 18**

Electives (21 credit hours)

MAN 480	Internship in Management	1-3 cr.
	or	
GEN XXX	General Elective	3 cr.
MAN 3XX/4XX	Management Elective	3 cr.
	or	
MAN 4xx	Management Elective	3 cr.
GEN XXX	General Electives	15 cr.

**Subtotal: 21**

Total Credit Hours: 39

### Management and Leadership Suggested Sequence of Courses

#### Degree Requirements

##### Freshman Year- Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Bus and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
MAN 201	Interpersonal Skills for Leading	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

LAB XXX	Laboratory Science	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

BL 308	Labor Management Relations	3 cr.
MAN 323	Human Resource Management	3 cr.
MAN 370	Project Management	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BL 424	Business Law for Human Resource Management	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
MAN 3XX/4XX	Management Elective	3 cr.
GEN XXX	General Elective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

BUS 450	Business Strategy	3 cr.
MAN 466	Seminar in Management and Leadership	3 cr.
MAN 480	Internship in Management	1-3 cr.
	or	
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: All MAN and BL courses as well as BUS 450.

## Marketing Major

### General Information

Marketing is a dynamic force in today's multinational economy. Given the highly competitive nature of business, it is essential that business organizations understand and respond to the wants and needs of multiple markets. In order to manage markets successfully, Marketing managers must employ a combination of good business judgment, effective analytical techniques, and professional communication skills. The marketing program strives to provide students with abilities in each of these areas.

Students in the Marketing major learn how to develop their marketing skills to become efficient marketing managers. Course projects are designed to provide students with exposure to real world marketing management problems. Students often work in group projects where they meet with business clients, gather marketing information, and develop real-time marketing solutions.

### Career Preparation

In order to help students understand careers available to Marketing majors, faculty in the Department of Marketing design activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished in First Year Seminar where students are introduced to marketing career opportunities;
2. Career Investigation in the sophomore year courses includes classroom assignments in MK 200 which could include visiting a Human Resource office or shadowing a marketing professional;
3. Career Determination in the junior year is accomplished using an assignment in MK 301 which is designed to help students become more knowledgeable about career options and to assist students with selecting an appropriate career path; and
4. Career Implementation in the senior year includes résumé writing and review of job descriptions and responsibilities in MK 421.

### Career Opportunities

Students majoring in marketing often pursue careers in marketing management, marketing research, sport marketing, sales and sales management, consumer management, and product/brand management.

### Marketing Faculty (p. 103)

### Program Learning Goals

Having completed a major in Marketing, the student will have the ability to:

1. understand the interactions required for the effective design and execution of strategic and marketing plans;
2. apply marketing theories and concepts to the analysis and design of solutions for marketing-related business challenges;
3. demonstrate skills in quantitative and qualitative research techniques as they apply to marketing problems; and
4. produce effective marketing plans, research reports, and oral presentations.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

## Degree Requirements

### Required Marketing courses (18 credit hours)

MK 301	Buyer Behavior	3 cr.
MK 311	Multinational Marketing	3 cr.
MK 318	Marketing Research	3 cr.
	or	
BIS 412	Business Analytics with SAP	3 cr.
MK 421	Marketing Management	3 cr.

**Subtotal: 12**

### And two of the following three courses

MK 317	Promotional Strategy	3 cr.
MK 320	Price and Product Strategy	3 cr.
MK 323	Distribution Strategy	3 cr.

**Subtotal: 6**

### Other required courses (3 credit hours)

COMM 340	Business Communication	3 cr.
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**Subtotal: 3**

### Electives (18 credit hours)

MK 3XX/4XX	Marketing Elective	3 cr.
MK 480	Internship	3 cr.
	or	
GEN XXX	General Elective	3 cr.
GEN XXX	General Electives	12 crs.

**Subtotal: 18**

Total Credit Hours: 39

## Marketing Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year - Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.
		<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
PH 211	Business Ethics	3 cr.
	or	
MAN 240	Business and Society	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
MK 301	Buyer Behavior	3 cr.
MK 318	Marketing Research	3 cr.
	or	

BIS 412	Business Analytics with SAP	3 cr.
LAB XXX	Laboratory Science	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

MK 317	Promotional Strategy	3 cr.
	and/or	
MK 320	Price and Product Strategy	3 cr.
	and/or	
MK 323	Distribution Strategy	3 cr.
CUL XXX	Cultural Perspective	3 cr.
COMM 340	Business Communication	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
MK 311	Multinational Marketing	3 cr.
	or	
COMM 348	Intercultural Communication	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

MK 421	Marketing Management	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
MK 480	Internship	3 cr.
	or	
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all “perspectives of understanding” requirements have been satisfied.

## Marketing Communication/Advertising Major

### General Information

New technology has enabled marketers to communicate in more effective ways. Such vehicles of marketing communication include interactive marketing, relationship marketing, video information systems, and the application of new technology in advertising. A better understanding of the role of communication in the marketplace is vital in helping businesses obtain a competitive edge. The major in Marketing Communication/Advertising prepares students to enter the work force with an understanding of how promotional strategies can be effectively used in executing and enhancing marketing messages. The Marketing Communication/Advertising major studies how marketers utilize and implement communication/promotional concepts when delivering the marketing message.

One of the unique features of the Marketing Communication/Advertising program is that our students produce actual advertising and promotional outputs that are evaluated by external business professionals. Students study all facets of the promotional mix including but not limited to; advertising, public relations/publicity, direct marketing, personal selling, Internet/interactive, and sales promotions.

### Career Preparation

In order to help students understand careers available to Marketing Communication/Advertising majors, faculty in the Department of Marketing design advertising activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished in First Year Seminar where students are introduced to marketing career opportunities;
2. Career Investigation in the sophomore year courses includes classroom assignments in MK 200 which could include visiting a Human Resource office or shadowing a professional in the field of marketing communication/advertising;
3. Career Determination in the junior year is accomplished using an assignment in MK 301 which is designed to help students become more knowledgeable about career options and to assist students with selecting an appropriate career path; and
4. Career Implementation in the senior year includes a required internship and class assignments in MK 422.

### Career Opportunities

Students majoring in Marketing Communication/Advertising often pursue careers in promotional management, marketing communication, direct marketing, public relations, and advertising account management.

**Marketing Faculty** (p. 103)

### Program Learning Goals

Having completed a major in Marketing Communication/Advertising, the student will have the ability to:

1. understand the interactions of communication and promotional strategies and tactics within the context of an organization and its various publics and markets;
2. apply theories in marketing, sociology, and psychology to the analysis and design of solutions for promotional issues and challenges;
3. demonstrate creative and analytical skills as they apply to marketing communication and promotional strategy; and
4. design and produce creative and appropriate promotional materials.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (83 credit hours)

### Degree Requirements

Required Marketing courses (15 credit hours)

MK 301	Buyer Behavior	3 cr.
MK 317	Promotional Strategy	3 cr.
MK 340	Promotion Design and Applications	3 cr.
MK 422	Campaign Planning and Management	3 cr.
MK 485	Marketing Communication/Advertising Internship	3 cr.

**Subtotal: 15**

Other required courses (9 credit hours)

COMM 340	Business Communication	3 cr.
COMM 348	Intercultural Communication	3 cr.
COMM 285	Introduction to Public Relations	3 cr.

**Subtotal: 9**

Electives (15 credit hours)

GEN XXX	General Elective	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.

**Subtotal: 15**

Total Credit Hours: 39

### Marketing Communication/Advertising Suggested Sequence of Courses

#### Degree Requirements

##### Freshman Year - Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.

MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 16****Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
COMM 100	Principles of Communication	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 16****Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
BL 201/HONB 201	Introduction to Business Law	3 cr.

**Subtotal: 15****Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
PH 211	Business Ethics	3 cr.
	or	

MAN 240	Business and Society	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15****Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
COMM 340	Business Communication	3 cr.
MK 301	Buyer Behavior	3 cr.
GEN XXX	General Elective	3 cr.
LAB XXX	Laboratory Science	3 cr.

**Subtotal: 15****Junior Year - Spring Semester**

MK 317	Promotional Strategy	3 cr.
BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
CUL XXX	Cultural Perspective	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 15****Senior Year - Fall Semester**

BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
GEN XXX	General Elective	3 cr.
MK 340	Promotion Design and Applications	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
COMM 348	Intercultural Communication	3 cr.
	or	
MK 311	Multinational Marketing	3 cr.

**Subtotal: 15****Senior Year - Spring Semester**

MK 422	Campaign Planning and Management	3 cr.
COMM 285	Introduction to Public Relations	3 cr.

MK 485	Marketing Communication/ Advertising Internship	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

Total credit hours required for graduation: 122.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in the sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all “perspectives of understanding” requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: All MK courses, COMM 285, COMM 340, and COMM 348.

## Pharmaceutical Business Major

### General Information

The Pharmaceutical Business curriculum at Western New England University focuses on both business and science to provide a well-rounded education. It combines key elements of the pharmaceutical sciences with knowledge about how the industry operates. The Pharmaceutical Business major integrates the fields of pharmacy, healthcare and business, while delivering a firm foundation in the sciences. Students majoring in pharmaceutical business develop a knowledge base to prepare them for entry into the pharmaceutical, biotechnology, and medical diagnostic device industries.

### Career Preparation

In order to help Pharmaceutical Business majors understand careers available to them, faculty design assignments and class projects to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year occurs in a First Year Seminar course where students are introduced to business career opportunities;
2. Career Investigation in the sophomore year is accomplished by taking a series of interdisciplinary courses in the sciences and pharmaceutical industry investigations;
3. Career Determination in the junior year is accomplished by completing a career assignment in the interdisciplinary course, Fundamentals of Pharmacy; and
4. Career Implementation in the senior year includes the opportunity to complete of an internship in the pharmaceutical, medical technology, or business-to-business industries.

### Career Opportunities

The Pharmaceutical Business major is preparing for entry into a highly specialized and unique industry. Sales, marketing, and supply chain positions are the usual entry point into the industry. Once gaining experience at this level, it is possible to advance into

marketing, brand management, information systems, and other management positions.

### Faculty

In this multidisciplinary major, students will learn from faculty in many disciplines, including accounting, biology, business information systems, chemistry, economics, finance, management, and marketing. A Fundamentals of Pharmacy course will provide an overview of the industry from pharmacy faculty.

### Program Learning Goals

Having completed a major in Pharmaceutical Business, the student will have the ability to:

1. apply science, marketing, management and information system knowledge to pharmaceutical business;
2. understand the marketplace factors that affect pharmaceutical business;
3. achieve competency in pharmaceutical business marketing including fundamental aspects of markets, consumer research, sales and promotion;
4. achieve competency in health care finance including key elements of budgeting, accounting, public/private financing, and revenue development;;
5. achieve competency in the economics of pharmaceutical business including fundamental concepts of industry structure, government policy, and legal/regulatory issues; and

See Core Requirements for All Business Majors and General University Requirements.

## Degree Requirements

Other courses 12 credit hours

BIO 101	Basic Biology: Organisms	3 cr.
CHEM 101	Modern Chemistry I	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3-4 cr.

**Subtotal: 12-13**

Business Electives 6 credit hours

GEN XXX	General Elective	6 cr.
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**Subtotal: 6**

Non business Electives 9 credit hours

GEN XXX	General Electives	9 cr.
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**Subtotal: 9**

Required Pharmaceutical Business courses 18 credit hours

BUS 345	Fundamentals of Pharmacy	3 cr.
FIN 382	Healthcare Finance	3 cr.
BIS 412	Business Analytics with SAP	3 cr.
MK 317	Promotional Strategy	3 cr.
MK 322	Sales and Sales Management	3 cr.
MK 323	Distribution Strategy	3 cr.

	or		
BIS 336	Logistics/Physical Distribution	3 cr.	
			<b>Subtotal: 18</b>

Total Credit Hours: 45-46

**Suggested Sequence of Courses****Degree Requirements****Freshman Year - Fall Semester**

BUS 101	First Year Business Seminar	3 cr.	
ENGL 132	English Composition I	3 cr.	
MATH 111	Analysis for Business and Economics	3 cr.	
or			
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.	
BIO 101	Basic Biology: Organisms	3 cr.	
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.	
or			
BIS 102	Problem Solving with Business Tools	3 cr.	
PEHR 151	Personal Health and Wellness	1 cr.	
			<b>Subtotal: 16</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.	
QR 112	Quantitative Reasoning for Business	3 cr.	
COMM 100	Principles of Communication	3 cr.	
MAN 101/HONB 101	Mgt and Organizational Behavior	3 cr.	
or			
BIS 102	Problem Solving with Business Tools	3 cr.	
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.	
PEHR 153-199	Lifetime Activity	1 cr.	
			<b>Subtotal: 16</b>

**Sophomore Year - Fall Semester**

AC 201/HONB 203	Financial Reporting	3 cr.	
MK 200/HONB 200	Principles of Marketing	3 cr.	
BIS 202	Intro to Business Info Systems	3 cr.	
EC 111	Principles of Microeconomics	3 cr.	
CHEM 101	Modern Chemistry I	3 cr.	
			<b>Subtotal: 15</b>

**Sophomore Year - Spring Semester**

AC 202	Managerial Accounting	3 cr.	
BIS 221	Statistics for Business Analytics	3 cr.	
FIN 214	Introduction to Finance	3 cr.	
EC 112	Principles of Macroeconomics	3 cr.	
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.	
LBC 2XX	Learning Beyond the Classroom	No cr.	
			<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BL 201/HONB 201	Introduction to Business Law	3 cr.	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.	
MK 317	Promotional Strategy	3 cr.	
BUS 345	Fundamentals of Pharmacy	3 cr.	
MAN 240	Business and Society	3 cr.	
or			
PH 211	Business Ethics	3 cr.	
			<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

GEN XXX	General Elective	3 cr.	
MK 322	Sales and Sales Management	3 cr.	
ILP XXX	Integrated Liberal Professional Perspective	3 cr.	
HIST XXX	Historical Perspective	3 cr.	
PSY 101	Introduction to Psychology	3 cr.	
or			
SO 101	Introduction to Sociology	3 cr.	
			<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BIS 312	Quality and Operations Management with SAP	3 cr.	
MK 323	Distribution Strategy	3 cr.	
or			
BIS 336	Logistics/Physical Distribution	3 cr.	
GEN XXX	General Elective	3 cr.	
FIN 382	Healthcare Finance	3 cr.	
CUL XXX	Cultural Perspective	3 cr.	
			<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

BUS 423	Product Development and Innovation	3 cr.	
or			

BUS 450	Business Strategy	3 cr.
BIS 412	Business Analytics with SAP	3 cr.
GEN XXX	General Elective	3 cr.
GEN XXX	General Elective	3 cr.
	or	
BUS 480	Internship in Business	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

Total credit hours required for graduation: 122.

\*Students are strongly encouraged to supplement their coursework with the following courses: ILP 345 Pharmaceutical Business Environment, COMM 340 Business Communications, COMM 285 Public Relations, and MAN 201 Interpersonal Skills for Managing.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all “perspectives of understanding” requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows: all BIS courses or their equivalents.

## Sport Management Major

### General Information

The Sport Management program emphasizes the business side of sports. Students majoring in sport management engage in a course of academic study that prepares them for a rewarding career in sport-related organizations. The Sport Management major understands the unique dynamics of the sport industry and is able to mobilize the resources available to meet the mission, goals, and objectives of both the sport organization and its stakeholders. The Sport Management program provides students with the opportunity to develop the knowledge and skills they need to manage within the sport industry. Students are also provided with industry-based learning opportunities and are actively involved in industry-based projects both in the classroom and beyond.

### Career Preparation

In order to help students understand careers available to Sport Management majors, faculty in the Department of Sport Management designed activities to guide students from career exploration through career implementation. Examples of some of these include:

1. Career Exploration in the freshman year is accomplished through a speaker series, an alumni panel and Sport Management Association activities;
2. Career Investigation in the sophomore year includes classroom assignments in SPMN 250 which look at opportunities in sport industry segments;
3. Career Determination in the junior year is accomplished using projects in SPMN 355 and SPMN 366; and

4. Career Implementation in the senior year is addressed through instruction in networking and sport job search skills in SPMN 465 combined with internships and field experiences.

### Career Opportunities

The Sport Management major is prepared to assume positions of responsibility in a wide variety of sport organizations in the private and public sectors. Graduates work in the following settings: professional sport, sport facility management, collegiate sport, sports clubs, health and fitness clubs, sports media, and the sporting goods industry.

### Sport Management and Business Law Faculty (p. 104)

### Program Learning Goals

Having completed a major in Sport Management, the student will have the ability to:

1. Develop an understanding and ability to apply managerial competencies to domestic and international sport organizations
2. Achieve competency in sport marketing including fundamental aspects of sport products, markets, consumer research, sponsorship, promotion and digital/social media
3. Achieve competency in the finance of sport organizations including key elements of budgeting, accounting, public/private joint financing, fund raising and revenue development
4. Achieve competency in legal aspects of sport including state/federal legislation, liability, risk management, contracts, and collective bargaining
5. Achieve competency in the economics of sport including fundamental concepts of supply and demand, economic forecasting, and economic impact assessment
6. Achieve competency in the management of sport facilities including fundamental concepts of planning, design, construction and both front of house and back of house operations

### Practicum, Internship, and Advanced Field Experience Options

Students majoring in Sport Management are afforded four different kinds of opportunities to apply their classroom learning to field experiences. All Sport Management majors must complete sport-industry based experiences as part of their curriculum.

Sport Management majors may complete a three-credit collegiate athletics course which provides students with the opportunity to plan, organize, and lead various elements of sport-related programming which may include intercollegiate athletic teams, intramurals, recreation, and health and wellness. Students gain hands-on experience in game operations, event management, sport promotion, and athletic communications while working directly under the supervision of Western New England University athletic department staff. The course combines classroom instruction with on-site sport industry experience.

Sport Management majors who meet the University’s academic requirements for internships (junior standing and grade point average of 2.5 or above overall and in the major) are eligible for the 3 credit Internship in Sport Management.

Sport Management majors with a grade point average of 3.0 and above are eligible to apply for the Advanced Field Experience (SPMN 460/461) program. This program places students in semester-

long, full-time intern positions within a sport organization. In place of the 6 credit hours of business electives, students in this program, earn 6 credit hours through a combination of the work they do at their placement site and a series of papers and presentations relating their field experience to the concepts and principles learned in their courses.

See Core Requirements for All Business Majors (p. 104) and General University Requirements (p. 28) (80 credit hours).

## Degree Requirements

### Sport Management Degree Requirements

SPMN 250	Managing Sport Organizations	3 cr.
SPMN 355	Sport Facility Planning and Management	3 cr.
EC 340	The Economics of Sports	3 cr.
SPMN 366	Sport Marketing	3 cr.
BL 360	Business Law for Sport Management	3 cr.
BL 388	Labor Management Relations in Sport	3 cr.
SPMN 420	International Sport Management	3 cr.
SPMN 465	Seminar in Sport Management	3 cr.
BUS 101	First Year Business Seminar	3 cr.
	And	
SPMN XXX	Sport Management Industry Experience	3 cr.
	or	
SPMN 480	Internship in Sport Management	3 cr.
		<b>Subtotal: 30</b>

### Electives (12 credit hours)

SPMN XXX	Sport Management Elective	3 cr.
GEN XXX	General Electives	9 cr.
		<b>Subtotal: 12</b>

Total Credit Hours: 42

## Sport Management Suggested Sequence of Courses

### Degree Requirements

#### Freshman Year - Fall Semester

BUS 101	First Year Business Seminar	3 cr.
ENGL 132	English Composition I	3 cr.
MATH 111	Analysis for Business and Economics	3 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
HIST XXX	Historical Perspective	3 cr.
MAN	Management and Organizational	3 cr.

101/HONB 101	Behavior	
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 16</b>

#### Freshman Year - Spring Semester

ENGL 133	English Composition II	3 cr.
QR 112	Quantitative Reasoning for Business	3 cr.
MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
	or	
BIS 102	Problem Solving with Business Tools	3 cr.
PSY 101	Introduction to Psychology	3 cr.
	or	
SO 101	Introduction to Sociology	3 cr.
COMM 100	Principles of Communication	3 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 16</b>

#### Sophomore Year - Fall Semester

AC 201/HONB 203	Financial Reporting	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
BIS 202	Introduction to Business Information Systems	3 cr.
EC 111	Principles of Microeconomics	3 cr.
SPMN 250	Managing Sport Organizations	3 cr.
		<b>Subtotal: 15</b>

#### Sophomore Year - Spring Semester

AC 202	Managerial Accounting	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
FIN 214	Introduction to Finance	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
MAN 240	Business and Society	3 cr.
	or	
PH 211	Business Ethics	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

**Junior Year - Fall Semester**

BUS 326	Business Planning for New Ventures	3 cr.
	or	
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
EC 340	The Economics of Sports	3 cr.
SPMN 355	Sport Facility Planning and Management	3 cr.
LAB XXX	Laboratory Science	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Junior Year - Spring Semester**

BL 360	Business Law for Sport Management	3 cr.
SPMN 420	International Sport Management	3 cr.
CUL XXX	Cultural Perspective	3 cr.
SPMN 366	Sport Marketing	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Fall Semester**

BIS 310	Quality and Operations Management	3 cr.
	or	
BIS 312	Quality and Operations Management with SAP	3 cr.
LAB/NSP XXX	Laboratory Science or Natural Science Perspective	3 cr.
SPMN XXX	Sport Management Elective	3 cr.
MAN 323	Human Resource Management	3 cr.
GEN XXX	General Elective	3 cr.
		<b>Subtotal: 15</b>

**Senior Year - Spring Semester**

BL 388	Labor Management Relations in Sport	3 cr.
BUS 423	Product Development and Innovation	3 cr.
	or	
BUS 450	Business Strategy	3 cr.
SPMN 465	Seminar in Sport Management	3 cr.
SPMN XXX	Sport Management Industry Experience	3 cr.
GEN XXX	General Elective	3 cr.
LBC 4XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

Sport Industry Experience: Course requirement filled with approved sport management field experience offering such as SPMN 480 or SPMN 450.

Total credit hours required for graduation: 122.

Sport Management students must also take MAN 323 as part of their business core requirement.

Students earning less than a B- in ENGL 132 or ENGL 133 will be required to take ENGL 206, Business Writing in sophomore year.

This major offers the option of 6 credits of advanced field experience (using the two business electives above).

Students must take 33 credit hours of coursework in 300-400 level courses. All students must take 12 hours of upper level (300-400) courses in their major at Western New England University.

General electives must be selected in such a way to ensure that all "perspectives of understanding" requirements have been satisfied.

Courses to be included in computing the 2.0 minimum average in the major are as follows:

All SPMN and BL courses, EC 340, Sport in Society Elective and BUS 450.

## College of Engineering

Dean S. Hossein Cheraghi  
Assistant Dean Richard Grabiec Jr.

The College of Engineering has been preparing students for successful engineering careers for over 50 years. Over that time we have been guided by an operating philosophy that acknowledges that our graduates will play significant roles fundamental to the health of our nation and of our globe. Throughout their careers they and their professional colleagues will advance the technological basis of our nation's economic health, defend our nation, and our way of life with the products of our craft; provide for the improved health and welfare of our citizenry; and improve the quality of life for all humankind—as the engineering profession has always been charged to do. Our graduates assume serious obligations upon beginning their careers.

The faculty is committed to seeing students succeed, with overall excellence in the teaching/learning enterprise being the primary goal. It is the faculty of the College of Engineering that is primarily responsible for developing and maintaining the environment supportive of learning for each student and for encouraging each student to reach for and achieve the highest goals possible.

### The Mission of the College of Engineering

The College of Engineering's mission is to provide undergraduate and graduate students an outstanding education in engineering through an environment of individual attention and support, dedicated and qualified faculty who are recognized in their fields, and modern facilities. Our graduates will possess the education and learning skills that enable them to put theory into practice, be professionally responsible engineers, and be leaders within the global community.

### The Vision of the College of Engineering

The College of Engineering will be recognized as a premier engineering institution with an emphasis on a contemporary undergraduate education, preferred by undergraduate and graduate students, faculty, prospective employers, and graduate schools nationally and internationally.

### The Core Values of the College of Engineering

We support the core beliefs of Western New England University and in particular we value:

#### *Student Centered Learning*

Promoting a learning environment based on a student first approach to ensure the success of our students.

#### *Discovery*

Contributing to the research, development, dissemination, and application of engineering knowledge, integrating theory, and practice

#### *Holistic Engineering and Leadership*

Providing an active learning pedagogy integrating knowledge across disciplines to cultivate leadership and decision making in solving complex problems to better serve humanity

#### *Responsibility*

Demonstrating integrity and accountability in all of our dealings

#### *Ethics and Professionalism*

Leading by actions characterized by ethics and professionalism

#### *Teamwork*

Providing pedagogy and opportunity for the development of successful teaming skills

#### *Community*

Being an active and collaborative part of Western New England University and the local, national, and global community

#### *Diversity and Internationalism*

Respecting the diversity of humankind, including but not limited to cultural, gender, and nationality differences

#### *Continuous Improvement*

Demonstrating successful continuous improvement processes of our College and its programs

#### **Programs of Study**

The College of Engineering offers curricula leading to the degrees:

Bachelor of Science in Biomedical Engineering (BSBE)  
Bachelor of Science in Civil Engineering (BSCE)  
Bachelor of Science in Computer Engineering (BSCPE)  
Bachelor of Science in Electrical Engineering (BSEE)  
Bachelor of Science in Industrial Engineering (BSIE)  
Bachelor of Science in Mechanical Engineering (BSME)

The undergraduate degree programs in Biomedical, Electrical, Industrial, and Mechanical Engineering are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The faculty realizes the typical tentativeness with which an entering freshman declares a major upon entry. Accordingly, all of the curricula share a common set of courses during the first two semesters of study. Students utilize this time to explore potential career directions and make informed decisions, declaring a degree objective before beginning their second year studies.

All curricula are based on mathematics and the basic sciences coupled with engineering sciences, with specialization beginning in the second year. Each program is structured to build upon preceding coursework, with successively more challenging courses, culminating with a capstone design experience during the fourth year. Each program is intended to prepare students for either entry into professional practice, or advanced formal studies. With 40% of required coursework taught by faculty in the College of Arts and Sciences, each program also integrates liberal and professional learning to provide the balance needed by modern engineering practitioners.

The College of Engineering believes that engineering as a discipline is better learned than taught, and that much of the maturing of students into engineers comes through personal hands-on experiences acquired in laboratory, project, and formal internships at industry sites throughout the Northeast. Through these avenues modern practice plays vital roles in the student's education. Senior projects are very often suggested by, and sometimes conducted in association with, the technical community. The programs are quite flexible in arranging for joint industry-student efforts, and in accommodating the needs of full-time and part-time students. In addition, undergraduate research projects are arranged by the faculty of the College of Engineering.

While undergraduate courses are occasionally offered in the evenings, it is not possible to complete an entire degree program in the evening.

### Transfer Agreements

Recognizing the important role of community colleges in the overall system of higher education and of cooperation among four-year colleges and universities with different emphases, the College of Engineering is making every effort to coordinate its programs with those of other institutions offering programs, such as engineering science, that provide the first two years of engineering study.

To date, joint admission agreements and/or transfer advising guides have been developed with the following community colleges: Greenfield, Holyoke, Berkshire, Hudson Valley, Manchester Technical, Quinsigimond, Asnuntuck, and Springfield Technical. Other agreements are being developed.

College of Engineering Special Academic Opportunities

Accelerated Five-Year and Six-Year Engineering Programs (p. 20)

Grand Challenges

### Honors: A Mark of Distinction

The Honors distinction in the College of Engineering at Western New England University gives students added depth and breadth to their engineering education by taking introductory level courses with an Honors cohort of like-minded engineering students, then selecting interdisciplinary courses or research experiences in their engineering major. This distinction on your academic record is an ideal way to show graduate schools and potential employers that you are a person who takes the extra step to learn and excel.

### Honors Program

The College of Engineering Honors Program at Western New England University is not a major in itself, but is open to students in any engineering field. It provides academically qualified and motivated students with a challenging pace of study, opportunities for broader consideration of core course themes, and advanced work in their areas of interest, which can be done individually and/or with the cohort, and under mentorship of the faculty.

### Admission

Entering freshmen who have met the GPA and SAT and/or ACT recommendation will automatically be invited to apply to the College of Engineering Honors Program. Students who do not meet these criteria but still strongly wish to be considered for acceptance into the Program are also encouraged to apply. Qualified students will receive an invitation from the Honors Program Coordinator requesting confirmation of interest. Students accepting this invitation will subsequently be notified of admission to the College of Engineering Honors Program and then, be registered for the first engineering Honors course during Summer Orientation and Registration Program (SOAR).

### Requirements

Students who have been admitted to the College of Engineering Honors Program must complete a selection of HON or HONE courses to meet the 18 semester-hours minimum, plus an honors project/thesis in their senior year in order to graduate with the University Honors. All honors students will be part of the cohort taking the following core courses:

HONE 102 First Year Engineering Seminar

HONE 105 Computer Programming for Engineers

HONE 110 Data Acquisition and Processing

HONE 202 Statics

HONE 205 Circuits I- Electrical Engineering I

Students, sophomore status and above, also have the option of taking a faculty-directed research course (HONE 240, HONE 340) and/or Independent Study Course (HON 333/HONE 333) as two of their six honors courses, in addition to the honors-by-contract courses in their engineering major. Honors-by-contract courses are arrangements between the student and the sponsoring faculty, to allow the student to go above and beyond the regular topics covered in the standard course and increase their depth of knowledge in the subject area.

### Senior Honors Project/Thesis

Each College of Engineering Honors program senior works closely with a faculty advisor to develop a final project. Students must submit an Honors project as approved and overseen by the Honors Committee in the College of Engineering.

### College of Engineering Department Chairs and Faculty

#### *Department of Biomedical Engineering Faculty*

Professor: Judy Cezeaux, Chair

Associate Professors: Anthony English, Robert Gettens, Michael Rust

Assistant Professor: Brent L. Ulrey

#### *Department of Civil and Environmental Engineering Faculty*

Professor: Kenneth Lee, Chair

Assistant Professors: Behzad Behnia, Seunghee Kim, Moochul Shin

#### *Department of Industrial Engineering Faculty*

Associate Professor: Julie Drzymalski, Interim Chair

Professors: S. Hossein Cheraghi, Richard Grabiec, Thomas Keyser

Associate Professor:

Assistant Professors: Zhaoujun (Steven) Li, Seyed Niknam, Matthew Romoser, Christian M. Salmon

Professor Emeritus: Eric Haffner

#### *Department of Electrical and Computer Engineering Faculty*

Associate Professor: Neeraj Magotra, Chair

Professors: Steven Northrup, Kourosh Rahnaimai

Associate Professors: John Burke, James Moriarty

Assistant Professors: Stephen Adamshick, Amer Qouneh, Ruolin (Jennifer) Zhou

Professors Emeriti: William Bradley, Stephen Crist, Rene Dube, James Masi, Ronald Musiak

#### *Department of Mechanical Engineering Faculty*

Professor: Said Dini, Chair

Professors: Mohammed Khosrowjerdi, Bart Lipkens

Associate Professors: Richard Mindek, Glenn Vallee, Mary Bazan Vollaro

Assistant Professors: Feruza Amirkulova, Jennifer Mallory, Anthony Santamaria

Visiting Assistant Professor: Charles Roche

Professors Emeriti: Robert Azar, Alan Karplus, Walter Presz, Henry Sundberg, Richard Veronesi

## Pre-engineering

### Admission to the College of Engineering

The admission to any undergraduate program in the College of Engineering at Western New England University is based on the undergraduate admission criteria for the College. A student may be admitted to the College of Engineering in two ways: directly into a major or as a pre-engineering student. A student is admitted directly into a major only if all College of Engineering admission criteria are met.

### Engineering Major

Incoming students who meet all admission criteria will be admitted into one of the following majors: Biomedical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering, or Mechanical Engineering. A student who meets the requirements for entering into a major within the College of Engineering, but is unsure of which major to pursue, may be admitted as an undeclared (ENGR) engineering student. A common curriculum for the first two semesters is provided for all engineering majors. Since the actual time required for completion of the curriculum will depend on the individual student's ability and prior preparation, personal consultations with engineering faculty advisors permit students to participate in both the determination of their current status and the planning and scheduling of further coursework.

### Pre-engineering Student

Students not admitted into one of the above majors may be admitted as pre-engineering students and should take the prescribed pre-engineering program of study specified by the College of Engineering. A student's academic performance will be monitored by their engineering faculty adviser. Students can advance into an engineering major when the admissions criteria specified by the College of Engineering are satisfied. A pre-engineering student may not enroll in any College of Engineering courses except for ENGR 100 and ENGR 105 until they have been certified by the College of Engineering as meeting the qualifications for placement as an engineering major.

Conditions for placement into an engineering major include the following:

- A grade of "C" or higher in both Calculus I and II (Math 133, and 134)
- A grade of "C" or higher in PHYS 133 or PHYS 132
- A minimum cumulative GPA of 2.0

Since the actual time required for completion of the curriculum will depend on the individual student's ability and prior preparation, personal consultations with their engineering faculty advisor permit students to participate in both the determination of their current status and the planning and scheduling of further coursework.

## Degree Requirements

### Pre-engineering Student First-Year Course of Study

Based upon the results of a mathematics placement exam and demonstrated proficiency in the mathematics in high school or pre-calculus in College, a pre-engineering student could qualify to be placed into MATH 133, and PHYS 133 in the Fall semester and MATH 134, PHYS 134, and ENGR 105 in the Spring semester.

### Freshmen Year - Fall Semester

ENGL 132	English Composition I	3 cr.
ENGR 100	Engineering Seminar & College Success Skills	2 cr.
MATH 109	Pre-Calculus Mathematics	3 cr.
PHYS 131	Elements of Mechanics I	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 14**

### Freshmen Year - Spring Semester

ENGL 133	English Composition II	3 cr.
MATH 130	Problem Solving in Calculus	1 cr.
MATH 133	Calculus I	4 cr.
PHYS 132	Elements of Mechanics II	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 13**

Total Credit Hours: 27

## College of Engineering Requirements

A common curriculum for the first two semesters is provided for all engineering students. Since the actual time required for completion of the curriculum will depend on the individual student's ability and prior preparation, personal consultations with engineering faculty advisors permit students to participate in both the determination of their current status and the planning and scheduling of further coursework.

Course prerequisites are used to identify the competencies required for enrollment in a course. As a result, enrollment in any course is contingent upon successful completion of all course prerequisites. A student may, however, petition the course instructor for a waiver of prerequisite(s). Applications for requesting an exception are available in the dean's office. The application must be completed and signed by the student, faculty instructor, chair of the department that offers the course, and the Dean of Engineering.

Engineering majors can apply no more than 25% of business coursework to their graduation requirements.

### Mathematical Analysis

MATH 133 (Calculus I) and MATH 134 (Calculus II) have been designated as the two mathematics foundation courses by the College of Engineering. A minimum grade of C is required in MATH 133 in order to be allowed to continue into MATH 134. Furthermore, a minimum grade of C is required in MATH 134 in order to proceed into the sophomore level engineering courses BME 201, ME 202, EE 205 and CEE 251.

## Degree Requirements

### Freshman Year - Fall Semester

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
PHYS 133	Mechanics	4 cr.

**Subtotal: 17**

### Freshman Year - Spring Semester

ENGL 133	English Composition II	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 17**

Individual curricula in Biomedical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering are given in the major programs section of the Catalogue.

### Design Experience

In the freshman year, students are introduced to engineering design, entrepreneurship, and product development and innovation in the Introduction to Engineering courses. Sophomore and junior courses and laboratories provide progressively more sophisticated design experiences within the student's discipline. All programs culminate in a capstone Senior Design Project course in which students work on projects under the supervision of a faculty advisor. Topics for some projects are supplied by industry. Students who select one of these topics have the opportunity to work with the industrial sponsor in an actual engineering setting.

### Electives (Undergraduate Programs)

General Education electives supplement the engineering student's technical program. These electives must be selected in such a way that all General Education "perspectives of understanding" requirements are covered. In addition, technical, design, and general electives provide the opportunity for specialization within a chosen field. An assigned departmental faculty advisor must approve selection of electives from Engineering, Arts and Sciences, or Business.

### Learning Beyond the Classroom (Undergraduate Programs)

The University is committed to making learning beyond the classroom (LBC) a significant element of every full-time undergraduate student's academic program and personal experience. It is envisioned that through the process of applying their classroom learning to their experiences in the workplace, in the community, on the playing fields, and across the campus, our students will not only enhance their learning, but will also begin to connect their learning more directly to the world in which they live. For these reasons, all students will be required to complete one LBC experience for every two years of full-time study.

## Biomedical Engineering Major

### General Information

Biomedical engineers have the unique ability to serve as a bridge between engineering and medicine. The rapid advancement of high technology into all medical specialties has increased the demand for engineers who have a depth of knowledge in both engineering and physiology. Biomedical engineers make significant contributions to society by improving patient care and ultimately improving the quality of life for others.

Western New England University provides Biomedical Engineering students with a solid engineering background and an in-depth understanding of human physiology, anatomy, and biology necessary to be a successful biomedical engineer. The curriculum is designed for maximum flexibility, allowing students to choose elective courses that are of most interest. In the junior and senior year, students choose four "sequence electives," two technical electives, as well as a series of five general education courses that fulfill the University's requirement for a perspective on ethics, history, aesthetics, integrated liberal and professional learning, cultural studies, and social and behavioral issues. Students are exposed to the major physiological systems during each of the final four semesters through laboratory work, courses, and through the capstone Senior Design Project.

The program leading to the B.S.B.E. degree is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. Accreditation affirms our quality.

### Career Opportunities

The Biomedical Engineering program at Western New England University is designed to prepare students for either immediate employment or for admission to graduate or medical school. Demand for biomedical engineers is growing as more and more technology is finding its way into all branches of medicine. Since the field of biomedical engineering is so broad, many of our graduates choose to specialize their knowledge in graduate or professional school by pursuing an M.S., Ph.D, or M.D. degree. Our graduates are working in the medical instrumentation and device industry, pharmaceutical companies, biotechnology companies, research facilities, and hospitals.

### Biomedical Engineering Faculty (p. 135)

#### Mission

The mission of the Biomedical Engineering program is to provide students with a supportive environment that facilitates learning to solve engineering problems related to medicine and biology in an ethically responsible manner.

The Biomedical Engineering program is committed to excellence in student learning. Graduates of the program will be problem solvers, able to apply engineering principles to the interface between living and non-living systems. The faculty and staff of the BME program use their diverse background in teaching, research, and industry to prepare students to be successful leaders in biomedical engineering as they move into the workforce, graduate school, or professional school.

#### Defining Characteristics

The Biomedical Engineering program:

- provides students opportunities to learn and apply core engineering principles to solve problems related to medicine or biology, emphasizing the need for interdisciplinary approaches;
- gives students opportunities to apply theory with practice-oriented laboratory, industrial or clinical experiences;

- produces engineers who can communicate well at all levels within an organization;
- delivers a dynamic curriculum that is continuously updated with input from practitioners and researchers in the field of biomedical engineering;
- promotes biomedical engineering as a career choice; and
- serves both the biomedical engineering community and society.

#### Program Educational Objectives

Graduates of the Western New England University Biomedical Engineering Program will

- function successfully in a variety of environments including industry, hospitals/clinics, government, graduate school or professional school;
- function as productive team members and leaders to solve engineering problems, including those at the interface of medicine and engineering;
- have an awareness of safety, ethics, sustainability and/or societal concerns in their professional endeavors;
- communicate complex technical concepts, both in written and oral communication, to diverse audiences; and
- be actively engaged in life-long learning such as participating or leading in relevant professional societies, continuing their education, or attending relevant workshops, meetings, or seminars.

#### Program Outcomes

The outcomes for the Biomedical Engineering program were chosen so that graduates will be prepared to meet the program objectives. Thus, graduates of the Biomedical Engineering program will have:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues; and
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

See College of Engineering Requirements (p. 136) and General University Requirements (p. 28).

## Degree Requirements

### Freshman Year - Fall Semester

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
PHYS 133	Mechanics	4 cr.

**Subtotal: 17**

### Freshman Year - Spring Semester

ENGL 133	English Composition II	3 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
PEHR 153-199	Lifetime Activity	1 cr.
PHYS 134	Electricity and Magnetism	4 cr.

**Subtotal: 17**

### Sophomore Year - Fall Semester

BME 201	Foundations of Biomedical Engineering	3 cr.
BIO 107	General Biology I	3 cr.
CHEM 105	General Chemistry I	4 cr.
EE 205	Electrical Engineering I	4 cr.
MATH 236	Differential Equations	3 cr.

**Subtotal: 17**

### Sophomore Year - Spring Semester

BME 202	Biomedical Systems	3 cr.
BME 206	Biomedical Sophomore Lab	1 cr.
BME 240	Biomaterials	3 cr.
CHEM 106	General Chemistry II	4 cr.
IE 212	Probability and Statistics	3 cr.
MATH 235	Calculus III	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 17**

### Junior Year - Fall Semester

BME 301	Engineering Physiology I	3 cr.
BME 305	Biomedical Engineering Lab I	1 cr.
BME 331	Bioinstrumentation	3 cr.
MATH 350	Engineering Analysis I	3 cr.
BME xxx	Sequence Elective	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.

**Subtotal: 16**

**Junior Year - Spring Semester**

BME 302	Engineering Physiology II	3 cr.
BME 306	Biomedical Engineering Laboratory II	1 cr.
BME 350	Biomedical Thermal Systems	3 cr.
BME 351	Biomechanics I	3 cr.
BME xxx	Sequence Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

BME 405	Biomedical Engineering Senior Laboratory	1 cr.
BME 437	Senior Design Projects I	3 cr.
BME 451	Biomechanics II	3 cr.
BME xxx	Sequence Elective	3 cr.
BME xxx	Technical Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

BME 440	Senior Design Projects II	4 cr.
xxx	Technical Elective	3 cr.
BME xxx	Sequence Elective	3 cr.
CUL XXX	Cultural Perspective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 16</b>

1. General Education courses must be selected in such a way to insure that all “perspective of understanding” requirements have been satisfied.

2. Premedical students and those students interested in upper-level biology courses need to take BIO 117 concurrently with BIO 107 and overload to 18 credit hours for this semester. See premedical students (p. 140) for additional requirements.  
Subtotal: 132

The 2.0 required minimum grade point average in the major is based upon all BME courses pursued as a part of the student’s degree program.

**Biomedical Engineering Technical Elective**

Any course labeled BME xxx that is not part of the required curriculum may be used to fulfill the BME technical elective.

**Technical Elective**

Any 200-level or above math or science course or any 300-level or above engineering course may be used to fulfill the technical elective.

Total Credit Hours: 132

**Biomedical Engineering Sequence Electives**

In the junior and senior years, there are a series of four “sequence elective” courses for which the students may choose one of the following sequences of courses. Additional sequences are possible but must be made in consultation with the student’s academic advisor.

**Sequence Electives**

**Bioinstrumentation Sequence**

BME 332	Biomedical Imaging	3 cr.
CPE 271	Digital Design	4 cr.
BME 431	Advanced Bioinstrumentation	3 cr.
BME 434	Biosensors, BioMEMS, and Nanomedicine	3 cr.

**Biomaterials Sequence**

CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.

Plus two of the following three courses:

BME 434	Biosensors, BioMEMS, and Nanomedicine	3 cr.
BME 443	Advanced Biomedical Materials and Medical Devices	3 cr.
ME 322	Manufacturing Processes	3 cr.

**Biomedical Micro and Nanodevices Sequence**

CHEM 211	Analytical Methods	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 203	Microbiology	4 cr.
BME 432	Lab on a Chip	3 cr.
BME 434	Biosensors, BioMEMS, and Nanomedicine	3 cr.

**Cell and Tissue Engineering Sequence**

CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 314	Biochemistry	3 cr.
BME 460	Cell and Tissue Engineering	3 cr.

**Computer Sequence**

CPE 305	Firmware Design for Embedded Systems	3 cr.
CPE 271	Digital Design	4 cr.
CPE 310	Microprocessors I	3 cr.
CPE 462	VHDL: Simulation and Synthesis	3 cr.

**Entrepreneurial Sequence**

ENTR 251	Entrepreneurship and Innovation	3 cr.
ENTR 326	Venture Feasibility	3 cr.
BME 423	Product Dev. and Innovation	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.

**Management Sequence**

MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
MAN 201	Interpersonal Skills for Leading	3 cr.
MAN 323	Human Resource Management	3 cr.
MAN 370	Project Management	3 cr.
	or	
MAN 422	Conflict Resolution	3 cr.

**Manufacturing Sequence**

IE 326	Production Planning and Control	3 cr.
IE 312	Engineering Economic Analysis	3 cr.
ME 322	Manufacturing Processes	3 cr.
IE 315	Quality Control and Engineering Statistics	3 cr.

**Marketing Sequence**

MK 200/HONB 200	Principles of Marketing	3 cr.
MK 301	Buyer Behavior	3 cr.
MK 317	Promotional Strategy	3 cr.
BME 423	Product Development and Innovation	3 cr.

**Mechanics Sequence**

ME 322	Manufacturing Processes	3 cr.
ME 425	Design of Machine Elements	3 cr.
ME 449	Computer-Aided Engineering	3 cr.
IE 312	Engineering Economic Analysis	3 cr.

**Medical Imaging Sequence**

EE 314	Fields and Waves	3 cr.
PHYS 301	Optics	3 cr.
BME 332	Biomedical Imaging	3 cr.
BME 335	Medical Image Processing	3 cr.

**Public Policy Sequence**

POSC 102	American National Government	3 cr.
POSC 205	Public Administration	3 cr.
POSC 218	Public Policy in America	3 cr.
POSC 321	The U.S. Congress	3 cr.
POSC 322	The U.S. Presidency	3 cr.

**Premedical Sequence**

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 314	Biochemistry	3 cr.

**Premedical Students**

Biomedical Engineering students intending to apply to medical school are advised to select the premedical elective sequence and seek the advice of their BME advisor and the campus premedical advisor as soon as practical.

Additional courses in Genetics, Cellular Physiology, and Human Anatomy are available through the Cooperating Colleges of Greater Springfield (CCGS).

**University-Wide Requirements:** A total of five University-wide requirement courses are listed in the Biomedical Engineering curriculum. These courses will be used to satisfy the requirement that all Western New England University students attain a perspective on: Ethics, History, Aesthetics, Integrated Liberal and Professional Learning, Cultural Studies, and Social and Behavioral issues. In addition to these courses a student is required to have two “learning beyond the classroom” (LBC) experiences that have been summarized with two 1,000-word essays connecting the student’s experience to the student’s profession.

**Accelerated Six-year Engineering/Law Program**

Certain Biomedical Engineering students have the opportunity to accelerate their attainment of a BS in Biomedical Engineering and a Law degree. Entrance requirements and standards necessary to maintain a tentative acceptance to the School of Law can be found in the “Six-year Engineering/Law Program” section of this catalogue.

Students choosing this unique curricular path will need to closely follow a prescribed sequence of courses and should consult closely with their BME advisor. The first two years of study will remain the same as the BME curriculum. The third year will change slightly to accommodate the senior year when the student will take both Engineering and School of Law courses. Some summer School of Law courses will be necessary after the fourth year.

**Five-Year Bachelor/MBA Program**

This program allows undergraduate Biomedical Engineering majors in the College of Engineering to accelerate the completion of the bachelor’s degree in Biomedical Engineering (BSBE) and to earn the master’s degree in Business Administration (MBA) with just one additional year of study.

**Five-Year Bachelor/MSEM Program**

This program allows undergraduate Biomedical Engineering majors in the College of Engineering to accelerate the completion of the bachelor’s degree in Biomedical Engineering (BSBE) and to earn the master’s degree in Engineering Management (MSEM) with just one additional year of study.

## Civil Engineering Major

### General information

Our nation's success has been built on the foundation of our solid infrastructure. Today, thousands of public works projects in the United States are in desperate need of repair and many more new infrastructure developments are necessary to keep our country competitive in the global community. There has never been a greater need for talented civil and environmental engineers to plan, execute, and lead these important projects.

The College of Engineering's Civil Engineering major educates students to become leaders in this important and in-demand profession. The Civil Engineering major provides students with a broad and well-integrated background in the concepts, theories, and methodologies needed to plan, design, analyze, develop, organize, and manage civil and environmental engineering projects. Students work with state-of-the-art equipment in our new concrete/structures, transportation, environmental/water resources, and soil mechanics laboratories.

The Civil Engineering major focuses on the latest advances in the design, construction, and maintenance of society's infrastructure – roads, railroads, buildings, airports, seaports, tunnels, dams, bridges, pipelines, water treatment and supply networks, and environmental systems. Students study major areas of civil engineering: structural engineering, transportation engineering, geotechnical engineering, environmental engineering, water resources engineering, and construction engineering. Students also study alternative/renewable energy, sustainable materials, and green building laws.

Civil Engineering students select one of four concentrations starting their junior year. They can select the Civil Engineering concentration, the Environmental Engineering concentration, the Reservoir Engineering concentration, or the Railway Engineering concentration. The first two years of the curriculum are the same for all Civil Engineering students. The selection of courses for the last two years is moderately different depending on the concentration. Note that any concentration leads to a successful career in civil engineering and selection of concentration should be based on personal preference and in consultation of career goals with an academic advisor.

The Western New England University College of Engineering will request accreditation of the Civil Engineering program upon compliance with the criteria for accreditation set forth by the Engineering Accreditation Commission (EAC). The criteria states that "ABET accreditation can be granted only if at least one student has graduated from the designated program." It is anticipated that the initial accreditation visit of the Civil Engineering program will be held during the September-December time period of 2017. An action to accredit the Civil Engineering program at that time will result in a retroactive accreditation being granted to those students who graduated during the two academic years prior to the on-site accreditation visit.

### Career Opportunities

**The Civil Engineering concentration** provides a solid foundation in major sub-disciplines of civil engineering that leads to employment in both private and public sectors of industry or military. Examples of career opportunities include city/county/state organizations, federal agencies, and small to large private engineering firms. The career outlook for civil engineers is bright as the Bureau of Labor Statistics projects an employment growth rate of 20% over the decade of 2012-2022.

**The Environmental Engineering concentration** provides a solid foundation in major sub-disciplines of civil engineering with an emphasis on environmental and water resources engineering. This concentration leads to employment in both private and public sectors of industry or military. Examples of career opportunities include state and federal agencies, water or wastewater treatment plants, environmental laboratories, and small to large private engineering firms. The career outlook for environmental engineers is bright as the Bureau of Labor Statistics projects an employment growth rate of 15% over the decade of 2012-2022.

**The Reservoir Engineering concentration** provides a solid foundation in major sub-disciplines of civil engineering with an emphasis on reservoir engineering. This concentration leads to employments in both private and public sectors of industry. Examples of career opportunities include state and federal agencies, private petroleum companies, and small to large private engineering firms.

**The Railway Engineering concentration** provides a solid foundation in major sub-disciplines of civil engineering with an emphasis on railway engineering. This concentration leads to employment in both private and public sectors of industry. Examples of career opportunities include state and federal agencies, and small to large private engineering firms.

### Electives

Electives supplement the engineering student's technical program. These electives must be selected in such a way that all General Education "perspective of understanding" requirements are covered. In addition, technical, design, and general electives provide the opportunity for specialization within a chosen field. An assigned departmental faculty advisor must approve selection of electives from engineering, mathematics, science, or business.

### Vision

The vision of the Department of Civil and Environmental Engineering is to be regionally, nationally and internationally recognized in providing civil engineering education, leading to well-qualified engineers who are innovative, immediate contributors to their profession and successful in advanced studies.

### Mission

The mission of the Civil Engineering program is to provide students with a supportive environment that facilitates learning to solve problems in civil and environmental engineering. The faculty and staff of the program use their background in teaching, research, and industry to prepare students to be successful as they move into the workforce or graduate school.

### Educational Objectives

Our graduates will:

- Demonstrate a strong fundamental scientific and technical knowledge base and critical thinking skills.
- Actively engage in lifelong learning related to the civil engineering profession.
- Plan, design, analyze, develop, organize and manage civil and environmental engineering projects.
- Demonstrate expertise in major sub-disciplines of civil engineering: structural engineering, transportation engineering, geotechnical engineering, environmental and water resources engineering.

**Program Outcomes**

The outcomes necessary to achieve our program objectives are that our students will have:

1. an ability to apply knowledge of mathematics, science, and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
4. an ability to function on multidisciplinary teams;
5. an ability to identify, formulate, and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
9. a recognition of the need for, and an ability to engage in lifelong learning;
10. a knowledge of contemporary issues;
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Civil and Environmental Engineering Faculty (p. 135)****Degree Requirements****Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PHYS 133	Mechanics	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
		<b>Subtotal: 17</b>

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

CEE 251	Surveying	3 cr.
CEE 253	Surveying Laboratory	1 cr.
ME 202	Statics	3 cr.
CHEM 105	General Chemistry I	4 cr.
MATH 236	Differential Equations	3 cr.
SBP XXX	Social/Behavioral Sci Perspective	3 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Spring Semester**

CEE 230	Engineering Geology	3 cr.
CEE 240	Strength of Civil Engineering Materials	3 cr.
CEE 242	Strength of Civil Engineering Laboratory	1 cr.
ME 203	Dynamics	3 cr.
CHEM 106	General Chemistry II	4 cr.
MATH 235	Calculus III	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 17</b>

**Civil Engineering Concentration**

Starting junior year, a student may choose the Civil Engineering concentration, the Environmental Engineering concentration, the Reservoir Engineering Concentration or the Railway Engineering Concentration. The Civil Engineering concentration is well suited for students planning on a career in structural engineering, transportation engineering, geotechnical engineering, or water resources engineering.

**Degree Requirements****Junior Year - Fall Semester**

CEE 341	Structural Analysis	3 cr.
CEE 351	Transportation Engineering	3 cr.
CEE 353	Transportation Engineering Laboratory	1 cr.
CEE 361	Engineering Fluid Mechanics	3 cr.
IE 212	Probability and Statistics	3 cr.
CUL XXX	Cultural/Aesthetic Perspective	3 cr.
		<b>Subtotal: 16</b>

**Junior Year - Spring Semester**

CEE 320	Environmental Engineering	3 cr.
CEE 322	Environmental Engineering Laboratory	1 cr.
CEE 330	Soil Mechanics	3 cr.
CEE 332	Soil Mechanics Laboratory	1 cr.
CEE 342	Steel & Reinforced Concrete Design	3 cr.
HIST XXX	Historical Perspective	3 cr.
xxx	Technical or Design Elective	2 cr.
		<b>Subtotal: 16</b>

**Senior Year - Fall Semester**

CEE 430	Geotechnical Engineering	3 cr.
CEE 451	Construction Materials	3 cr.
CEE 453	Construction Materials Laboratory	1 cr.

CEE 461	Water Resources Engineering	3 cr.
xxx	Technical or Design Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.

**Subtotal: 16**

**Senior Year - Spring Semester**

CEE 400	Ethical and Professional Issues	1 cr.
CEE 402	Capstone Design	3 cr.
CEE 470	Construction Engineering	3 cr.
IE 312	Engineering Economic Analysis	3 cr.
xxx	Technical or Design Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

LBC XXX	Learning Beyond the Classroom	No cr.
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**Subtotal: 16**

1. Technical or design electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.
2. General Education courses must be selected in such a way to insure all "perspectives of understanding" (p. 28) requirements have been satisfied.
3. General elective. Selected on approval of the academic advisor.

Total credit hours required for graduation: 132.

The 2.0 required minimum grade point average in the major is based upon all CEE courses pursued as a part of the student's degree program.

Total Credit Hours: 64

**Environmental Engineering Concentration**

The Environmental Engineering concentration is well suited for students planning on a career in environmental engineering, water resources engineering, or geotechnical engineering.

**Degree Requirements**

**Junior Year - Fall Semester**

CEE 341	Structural Analysis	3 cr.
CEE 351	Transportation Engineering	3 cr.
CEE 353	Transportation Engineering Laboratory	1 cr.
CEE 361	Engineering Fluid Mechanics	3 cr.
IE 212	Probability and Statistics	3 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.

**Subtotal: 17**

**Junior Year - Spring Semester**

CEE 320	Environmental Engineering	3 cr.
CEE 322	Environmental Engineering Laboratory	1 cr.

CEE 324	Groundwater Engineering	3 cr.
CEE 330	Soil Mechanics	3 cr.
CEE 332	Soil Mechanics Laboratory	1 cr.
CEE 342	Steel & Reinforced Concrete Design	3 cr.

HIST XXX	Historical Perspective	3 cr.
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**Subtotal: 17**

**Senior Year - Fall Semester**

CEE 430	Geotechnical Engineering	3 cr.
CEE 461	Water Resources Engineering	3 cr.
ME 303	Thermodynamics I	3 cr.
xxx	Technical or Design Elective	3 cr.

CUL XXX	Cultural/Aesthetic Perspective	3 cr.
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**Subtotal: 15**

**Senior Year - Spring Semester**

CEE 400	Ethical and Professional Issues	1 cr.
CEE 402	Capstone Design	3 cr.
CEE 470	Construction Engineering	3 cr.
IE 312	Engineering Economic Analysis	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

LBC XXX	Learning Beyond the Classroom	No cr.
PH XXX	Ethical Perspective	3 cr.

**Subtotal: 16**

1. Technical or design electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.
2. General Education courses must be selected in such a way to insure all "perspectives of understanding" (p. 28) requirements have been satisfied.
3. General elective. Selected on approval of the academic advisor.

Total credit hours required for graduation: 133.

The 2.0 required minimum grade point average in the major is based upon all CEE courses pursued as a part of the student's degree program.

**Railway Engineering Concentration**

The Railway Engineering concentration provides a solid foundation in major sub-disciplines of civil engineering with an emphasis on railway engineering. This concentration leads to employment in both private and public sectors of industry. Examples of career opportunities include state and federal agencies, and small to large private engineering firms.

**Degree Requirements**

**Junior Year - Fall Semester**

CEE 341	Structural Analysis	3 cr.
CEE 351	Transportation Engineering	3 cr.

CEE 353	Transportation Engineering Laboratory	1 cr.
CEE 361	Engineering Fluid Mechanics	3 cr.
CEE 455	Railroad Transportation Engineering	3 cr.
IE 212	Probability and Statistics	3 cr.

**Subtotal: 16****Junior Year - Spring Semester**

CEE 320	Environmental Engineering	3 cr.
CEE 322	Environmental Engineering Laboratory	1 cr.
CEE 330	Soil Mechanics	3 cr.
CEE 332	Soil Mechanics Laboratory	1 cr.
CEE 342	Steel & Reinforced Concrete Design	3 cr.
CEE 456	Railroad Track Structure Engineering	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17****Senior Year - Fall Semester**

CEE 430	Geotechnical Engineering	3 cr.
CEE 451	Construction Materials	3 cr.
CEE 453	Construction Materials Laboratory	1 cr.
CEE 461	Water Resources Engineering	3 cr.
xxx	Technical or Design Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.

**Subtotal: 16****Senior Year - Spring Semester**

CEE 400	Ethical and Professional Issues	1 cr.
CEE 402	Capstone Design	3 cr.
CEE 470	Construction Engineering	3 cr.
IE 312	Engineering Economic Analysis	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
CUL XXX	Cultural/Aesthetic Perspective	3 cr.

**Subtotal: 16**

1. Technical or design electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.

2. General Education courses must be selected in such a way to insure all "perspectives of understanding" (p. 28) requirements have been satisfied.

3. General elective. Selected on approval of the academic advisor.

Total credit hours required for graduation: 132.

The 2.0 required minimum grade point average in the major is based upon all CEE courses pursued as a part of the student's degree program.

Total Credit Hours: 65

**Reservoir Engineering Concentration**

The Reservoir Engineering concentration is well suited for students planning on a career in reservoir engineering or water resources engineering.

**Degree Requirements****Junior Year - Fall Semester**

CEE 341	Structural Analysis	3 cr.
CEE 351	Transportation Engineering	3 cr.
CEE 353	Transportation Engineering Laboratory	1 cr.
CEE 361	Engineering Fluid Mechanics	3 cr.
IE 212	Probability and Statistics	3 cr.
CUL XXX	Cultural/Aesthetic Perspective	3 cr.

**Subtotal: 16****Junior Year - Spring Semester**

CEE 320	Environmental Engineering	3 cr.
CEE 322	Environmental Engineering Laboratory	1 cr.
CEE 324	Groundwater Engineering	3 cr.
CEE 330	Soil Mechanics	3 cr.
CEE 332	Soil Mechanics Laboratory	1 cr.
CEE 342	Steel & Reinforced Concrete Design	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17****Senior Year - Fall Semester**

CEE 411	Petroleum Fluids & Reservoir Engineering	3 cr.
CEE 430	Geotechnical Engineering	3 cr.
CEE 461	Water Resources Engineering	3 cr.
xxx	Technical or Design Elective	3 cr.
PH XXX	Ethical Perspective	3 cr.

**Subtotal: 15****Senior Year - Spring Semester**

CEE 400	Ethical and Professional Issues	1 cr.
CEE 402	Capstone Design	3 cr.
CEE 412	Petrophysics and Reservoir Geomechanics	3 cr.
CEE 470	Construction Engineering	3 cr.
IE 312	Engineering Economic Analysis	3 cr.

ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 16**

Subtotal: 64

1. Technical or design electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.

2. General Education courses must be selected in such a way to insure all "perspectives of understanding" (p. 28) requirements have been satisfied.

3. General elective. Selected on approval of the academic advisor.

Total credit hours required for graduation: 132.

The 2.0 required minimum grade point average in the major is based upon all CEE courses pursued as a part of the student's degree program.

## Electrical and Computer Engineering Majors

### General Information

Electrical and Computer engineers are at the forefront of today's technological revolution and they continue to be in demand in all types of public and private enterprises. The value added in today's products is primarily electronics and software. The Internet has filled our lives with their influences. Electrical and Computer engineering touch every aspect of today's modern world. Our graduates are uniquely qualified to become engineers, capable of designing hardware and software. Electrical and Computer engineers work in the communications, controls, signal and image processing, biomedical, aerospace, electronics, computer hardware, embedded systems, materials, energy, defense, data gathering / analysis and other diverse commercial sectors.

The Electrical and Computer Engineering programs provide the student with a thorough background in electronic/hardware and systems design. Individual students can tailor their program to his or her specific interests by selecting appropriate technical or design electives. Elective areas include electronics, and land-based wireless communications, VLSI, digital signal processing (DSP), power electronics, controls, robotics, image processing, and embedded systems. In all of our courses, we stress the balance of theory and practice. The theory, presented in class, is coupled with extensive, practical, hands-on laboratory projects and experiments.

Our laboratories are well equipped and all facilities are available for undergraduate use. Our laboratory equipment is updated on a rotating basis, allowing for a continued renewal and state-of-the-art technology in a rapidly changing world.

Electrical and Computer Engineering Laboratories:

- Embedded Systems Laboratory
- Controls and Artificial Intelligence Laboratory
- Robotics / Mechatronics Laboratory
- Circuits Laboratory
- Electronics Laboratory
- Energy / Power Laboratory

- RF / Wireless Laboratory
- Digital Signal/Image Processing and Communications Laboratory
- Projects Laboratory

Access is also provided to the following laboratories in other engineering departments as needed:

- Bioinstrumentation Laboratory
- Biomedical Engineering Physiology Laboratory
- Industrial Engineering Laboratory
- Mechanical Engineering Laboratory

Additionally, a fully equipped Machine Shop is available to students as well as a Rapid Prototyping STL machine.

The program leading to the BSEE degree is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The Western New England University College of Engineering will request ABET accreditation of the Computer Engineering program (leading to the BSCPE. degree) upon compliance with the criteria for accreditation set forth by the Engineering Accreditation Commission (EAC). The criteria states that "ABET accreditation can be granted only if at least one student has graduated from the designated program." It is anticipated that the initial accreditation visit of the Computer Engineering program will be held during the September-December time period of 2017. An action to accredit the Computer Engineering program at that time will result in a retroactive accreditation being granted to those students who graduated during the academic year prior to the on-site accreditation visit

### Design Experience

Students in the Electrical Engineering program and Computer Engineering program are introduced to engineering design in the freshman year in the Introduction to Engineering courses. Sophomore and junior courses and labs provide progressively more sophisticated design experiences within the electrical engineering program and computer engineering program respectively. Both programs culminate in a year-long capstone Senior Design Project course in which each student works on an independent project under the supervision of a faculty advisor. Most of the projects are sponsored by industry. Students involved in these projects have the opportunity to work with the industrial sponsor in an actual engineering environment.

### Electives

Electives, in both programs, supplement the engineering student's technical program. These electives must be selected in such a way that all General Education "perspective of understanding" requirements are covered. In addition, technical, design, and general electives provide the opportunity for specialization within a chosen field. An assigned departmental faculty advisor must approve selection of electives from engineering, mathematics, science, or business.

### Electrical and Computer Engineering Faculty (p. 135)

### Electrical and Computer Engineering Vision and Mission

#### Vision

The Electrical Engineering and Computer Engineering programs at Western New England University will become nationally recognized

for graduating students that have experienced putting theory into practice and are also capable of succeeding in advanced studies.

### **Mission**

The mission of the Electrical Engineering and Computer Engineering programs is to provide students with a supportive environment that facilitates learning to solve problems in electrical engineering.

The Electrical and Computer Engineering programs are committed to excellence in student learning. Graduates of the programs will be problem solvers, able to apply engineering principles to electrical and computer systems. The faculty and staff of the programs use their background in teaching, research, and industry to prepare students to be successful as they move into the workforce or graduate school.

### **Program Educational Objectives**

In support of the program objectives for the College of Engineering, the Electrical Engineering and Computer Engineering programs will prepare our students to be proficient at putting theory into practice, capable of lifelong learning, and be aware of the social, ethical, and environmental issues associated with their professional activities.

To ensure these goals, our specific expected accomplishments of our graduates during the first several years following graduation for the program are:

1. to be successful analyzing, designing, or testing electrical/computer systems;
2. to be a productive member of a team;
3. to be assuming leadership roles in their career;
4. to be contributing in professional and civic service; and
5. to be pursuing lifelong learning.

### **Student Outcomes**

The outcomes necessary to achieve our Electrical Engineering program and Computer Engineering program objectives are that our students will have:

- a. an ability to apply knowledge of mathematics, science, and engineering;
- b. an ability to design and conduct experiments, as well as to analyze and interpret data;
- c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- d. an ability to function on multidisciplinary teams;
- e. an ability to identify, formulate, and solve engineering problems;
- f. an understanding of professional and ethical responsibility;
- g. an ability to communicate effectively;
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- i. a recognition of the need for, and an ability to engage in lifelong learning;
- j. a knowledge of contemporary issues;
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice;

l. an ability to model, analyze, simulate, and design circuits and systems;

m. an ability to use computer and/or laboratory tools in the design of circuits and systems;

n. an ability to build, test, and debug prototype circuits and systems and analyze results; and

o. an ability to use the principles of design to solve open-ended engineering problems

### **Career Opportunities**

The application areas for electrical and computer engineering are fairly ubiquitous and our Electrical and Computer Engineering programs provide a broad based education that leads to employment in a diverse spectrum of industries in both private and public sectors, for example, aerospace, defense, telecommunications, automotive, medical electronics, multimedia and consumer electronic industries, energy and power. In particular we offer courses in electronic communications, power electronics, robotics, artificial intelligence, controls, digital signal/image processing, hardware design, architecture, software and hardware design, and embedded systems, power generation and distribution, alternative energy sources and integrating renewable forms of energy into the grid.

To provide additional depth in some of these areas the department offers Program Sequence Options (p. 148) as listed below.

- Robotics/Mechatronics Sequence
- Digital Signal/Image Processing and Communications Sequence
- RF/Microwave Engineering Sequence
- Controls/Artificial Intelligence Sequence
- Energy/Green Sequence
- Flex Sequence

These Sequence Options have been described in detail following the Electrical Engineering program and Computer Engineering program degree requirements.

## **Degree Requirements**

### **Freshman Year- Fall Semester**

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PHYS 133	Mechanics	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 17**

### **Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.

PHYS 134	Electricity and Magnetism	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

CHEM 105	General Chemistry I	4 cr.
EE 205	Electrical Engineering I	4 cr.
ME 202	Statics	3 cr.
MATH 236	Differential Equations	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Spring Semester**

CPE 271	Digital Design	4 cr.
EE 206	Electrical Engineering II	4 cr.
EE 285	Computational Techniques in C	3 cr.
MATH 235	Calculus III	3 cr.
PH XXX	Ethical Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 17</b>

Subtotal: 68

**Electrical Engineering Program**

Graduates of the Electrical Engineering Program have the ability to apply their knowledge and skills in a variety of professional electrical engineering positions dealing with research, design, manufacturing, and operation of equipment and services including power, control, communication, computer, optical and electro-optical systems, consumer electronics, household appliances, and electrical and electronic devices and materials. They can also apply for advanced graduate studies.

**Degree Requirements**

**Junior Year - Fall Semester**

IE 212	Probability and Statistics	3 cr.
EE 301	Signals and Systems	3 cr.
EE 303	Introduction to Microelectronic Circuits I	3 cr.
EE 314	Fields and Waves	3 cr.
EE 319	Electrical Engineering Lab I	2 cr.
CUL XXX	Cultural Perspective	3 cr.
		<b>Subtotal: 17</b>

**Junior Year - Spring Semester**

EE 302	Introduction to Digital Signal Processing	3 cr.
EE 312	Semiconductor Devices	3 cr.
EE 320	Introduction to Microelectronic Circuits II	3 cr.
EE 323	Electrical Engineering Laboratory IIa	1 cr.

EE 324	Electrical Engineering Laboratory IIb	1 cr.
xxx	Technical Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
		<b>Subtotal: 17</b>

**Senior Year - Fall Semester**

EE 422	Control Systems	3 cr.
EE 450	Power Electronics	3 cr.
EE 427	Electrical Engineering Laboratory III	2 cr.
EE 436	Project Research, Innovation and Development	2 cr.
EE 439	Professional Awareness	1 cr.
xxx	Design Elective	3 cr.
xxx	Technical Elective	3 cr.
		<b>Subtotal: 17</b>

**Senior Year - Spring Semester**

EE 440	Senior Design Projects	3 cr.
GEN XXX	General Elective	3 cr.
xxx	Technical Elective	3 cr.
xxx	Design Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

1. Technical electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.
  2. General Education courses must be selected in such a way to insure that all "perspective of understanding" requirements have been satisfied.
  3. Design electives must be selected from a list published in each semester's course schedule and approved by the advisor.
  4. General elective. Selected on approval of the academic advisor.
- Subtotal: 66

Total credit hours required for graduation: 134.

The 2.0 required minimum grade point average in the major is based upon all CPE and EE courses pursued as a part of the student's degree program.

**Computer Engineering Program**

Graduates of the Computer Engineering Program have the ability to apply their knowledge and skills in a variety of professional engineering positions dealing with research, design, manufacturing, operation, and service of small or large computer hardware, software, and embedded systems. They can also apply for advanced graduate studies.

## Degree Requirements

### Junior Year - Fall Semester

IE 212	Probability and Statistics	3 cr.
CPE 310	Microprocessors I	3 cr.
EE 301	Signals and Systems	3 cr.
EE 303	Introduction to Microelectronic Circuits I	3 cr.
CPE 305	Firmware Design for Embedded Systems	3 cr.
EE 319	Electrical Engineering Laboratory I	2 cr.
		<b>Subtotal: 17</b>

### Junior Year - Spring Semester

CPE 355	Real Time Embedded Kernels	3 cr.
CPE 360	Microprocessors II	4 cr.
EE 302	Introduction to Digital Signal Processing	3 cr.
EE 320	Introduction to Microelectronic Circuits II	3 cr.
EE 323	Electrical Engineering Laboratory IIa	1 cr.
CUL XXX	Cultural Perspective	3 cr.
		<b>Subtotal: 17</b>

### Senior Year - Fall Semester

CPE 420	Computer Architecture	3 cr.
CPE 427	Computer Engineering Laboratory	2 cr.
CPE 436	Project Research, Innovation and Development	2 cr.
CPE 439	Professional Awareness	1 cr.
HIST XXX	Historical Perspective	3 cr.
xxx	Design Elective	3 cr.
CPE 462	VHDL: Simulation and Synthesis	3 cr.
		<b>Subtotal: 17</b>

### Senior Year - Spring Semester

CPE 470	Real-time Embedded Controls	3 cr.
CPE 440	Senior Design Projects	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
xxx	Technical Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

1. General Education courses must be selected in such a way to insure that all "perspective of understanding (p. 28)" requirements have been satisfied.
2. Design electives must be selected from a list published in each semester's course schedule and approved by the advisor.
3. Technical electives are engineering, math, science, or computer courses normally numbered 300 or above and approved by the advisor.
4. General elective. Selected on approval of the academic advisor.

Subtotal: 66

Total credit hours required for graduation: 134.

The 2.0 required minimum grade point average in the major is based upon all CPE and EE courses pursued as a part of the student's degree program.

## Program Sequence Options

There are several program sequence options within the Electrical Engineering and Computer Engineering programs as listed below.

- Robotics/Mechatronics Sequence
- Digital Signal/Image Processing and Communications Sequence
- RF/Microwave Engineering Sequence
- Controls/Artificial Intelligence Sequence
- Energy/Green Sequence
- Flex Sequence

The student can select a sequence option by appropriately tailoring their choice of electives during their junior and senior years. Each sequence option has been described below, along with a list of typical courses used to provide the required depth in the area. These lists are by no means exhaustive; the student makes his or her selection of sequence electives in consultation with their faculty advisor.

### *Robotics/Mechatronics Sequence*

Robotics/Mechatronics represents an integrated technology approach for the design of intelligent systems and products. Intelligent systems driven primarily by human operator inputs are considered mechatronic systems; smart washing machines would be a good example. Intelligent systems driven primarily by automatic/sensor and adaptive inputs are robotic systems; the Google Driverless car would be a good example. The Robotics / Mechatronics sequence is intended for students who want to focus in this area while working on their BSEE degree. Students in the Electrical Engineering or Computer Engineering programs can elect to take this sequence by an appropriate selection of technical electives during their junior and senior years and completing their senior project in this area.

The sequence electives provide coverage of the following topics:

- embedded programming and computing
- sensors and actuators
- adaptive control and environmental interactions
- computer vision and navigation

Typical courses:

EE302 Introduction to Digital Signal Processing

CPE360 Microprocessors II

EE422 Control Systems

CPE470 Real-time Embedded Controls

CPE462 VHDL - Simulation and Systems

***Digital Signal/Image Processing(DSIP) and Communications Sequence***

Over the past couple of decades DSIP/Communication applications have become ubiquitous. Technical advances in this field have enabled cellular telephony, high definition television (HDTV), web-based applications like Facebook, Twitter, advanced medical devices, digital instrumentation, remote sensor systems, software defined radio (SDR), and cognitive radio systems to name a few examples. The DSIP/Communications sequence is intended for students who want to focus in this area while working on their BSEE degree. Students in the Electrical Engineering or Computer Engineering programs can elect to take this sequence by an appropriate selection of technical electives during their junior and senior years and completing their senior project in this area. Students have access to a wide range of professional computer tools and labs.

The sequence electives provide coverage of the following topics –

- digital signal processing
- digital image processing
- digital communications
- software defined radio based cognitive radio
- sensor processing systems (e.g. radar, seismic, space probes)

Typical courses:

EE302 Introduction to Digital Signal Processing

EE411 Random Signals and Noise

EE423 Communications

EE432 Wireless Communications

EE425 Linear Systems Theory

***Controls and Artificial Intelligence Sequence***

*Modern Control Theory* Utilizing state-space analysis, where the dynamics of the processes are described by first-order differential equations in matrix form, has made an enormous impact on the analysis and design of controllers for complex systems. In recent years, modern control theory has advanced rapidly and is now recognized as an indispensable and practical technique for the design and analysis of feedback control systems in diverse areas such as aeronautics, autonomous vehicles, space craft systems design etc.

*Artificial Intelligence* The field of artificial intelligence or soft-computing utilizes Neural Networks and Fuzzy Logic. In recent years, there has been an explosive growth in applications of neural networks, in part due to the advances in computational power. Neural networks, neurocomputing, or 'brain-like' computing is based on the hope that we can reproduce at least some of the flexibility and power of the human brain by artificial means. Similarly, Fuzzy logic tries to mimic the human cognitive processes. Applications of these technologies abound in many consumer products such as camcorders, air conditioners, refrigerators, automobiles etc. These technologies are applied in a variety of fields such as; signal processing, speech recognition, visual perception, control, robotics and many more.

Our controls and artificial intelligence sequence will give students expertise in the areas of industrial automation, aerospace control and artificial intelligence.

The sequence electives provide coverage of the following topics:

- Linear Systems Theory
- Fuzzy Logic
- Neural Networks
- Computer Controlled Systems

Typical courses:

EE422 Control Systems

EE445 Neural Networks

EE470 Computer Controlled Systems

EE435 Fuzzy Logic

EE425 Linear Systems Theory

***RF/Microwave Engineering Sequence***

RF/Microwave Engineering Sequence represents an integrated technology approach for the design of high frequency systems and products. The students in the RF/Microwave Engineering Sequence are exposed to different aspects of applied electromagnetics including antennas design, the design of high frequency passive and active circuits, the design high frequency systems, etc. This sequence is designed to meet the growing needs of companies for engineers skilled in high frequency circuit design. The RF/Microwave Engineering Sequence is intended for students who want to focus in this area while working on their BSEE degree. Students in the Electrical Engineering program can elect to take this sequence by an appropriate selection of technical electives during their junior and senior years and completing their senior project in this area.

The sequence electives provide coverage of the following topics:

- Fields and Waves
- Microwave Engineering
- RF & Microwave Wireless Systems
- RF & Microwave Active Circuit Design
- Wave Transmission and Reception
- Software Defined Radio

Typical courses:

EE314 Fields and Waves

EE414 Microwave Engineering

EE416 Electromagnetic Compatibility

EE455 RF and Microwave Wireless Systems

EE456 RF and Microwave Active Circuit Design

EE457 Wave Transmission and Reception

***Energy/Green Engineering Sequence***

The Energy/Green Energy sequence provides students in the Electrical Engineering program with an understanding of energy issues critical to our environment in addition to a solid background in electrical engineering. It offers electives such as power generation and distribution, energy management, and alternative energy sources. Focus is also provided on integrating renewable forms of energy into the grid. The Energy/Green sequence provides the necessary skills for a successful career in this field. The concentration includes three

“green” electives that may be taken within or outside of EE major. The area topics covered by these electives are Power Electronics, Motor Control, and Energy Converter/Inverters. These electives can be selected from an approved list in consultation with the academic advisor.

In addition to electrical power stations where students gain experience in working with AC and DC electrical machines, they also have access to a Renewable Energy laboratory, a shared resource with the ME department. That laboratory contains over a kilowatt of solar panels, a one-kilowatt conventional wind turbine, a weather station, and a geothermal heating and cooling system, all of which is fully instrumented.

The sequence electives provide coverage of the following topics:

- Power Transmission
- Power Generation
- Integration of power generated by alternative sources (wind, solar, etc.) into the grid
- Monitoring and Control
- Smart Grid
- Motors

Typical courses:

EE336 Electrical Energy Systems

EE338 Electrical Drives

EE434 Electrical Energy Convertors/Invertors

EE450 Power Electronics

CPE310 Microprocessors I

### ***Flex Sequence***

The Flex sequence is intended for students who want to obtain a basic degree in Electrical Engineering (BSEE) but also want to specialize in a related area of particular interest to them. The course of study for the Flex sequence is identical to that of the Electrical Engineering or Computer Engineering programs with the added flexibility of selecting in the junior/senior years, three electives to help diversify the student’s area of interest.

In general, the sequence options could be from other engineering disciplines or from the College of Arts and Sciences, College of Business, or College of Pharmacy.

The three electives must represent a coherent set in areas such as entrepreneurship, mechatronics, marketing, computer science, audio, etc. They must be selected in consultation with the student’s academic adviser and department chair in accordance with departmental guidelines.

## **Five-Year Bachelor/MSEE Program**

This program allows undergraduate Electrical Engineering majors in the College of Engineering to accelerate the completion of the bachelor’s degree in Electrical Engineering (BSEE) and to earn the master’s degree in Electrical Engineering (MSEE) with just one additional year of study.

## **Five-Year Bachelor/MBA Program**

This program allows undergraduate Electrical and Computer Engineering majors in the College of Engineering to accelerate the completion of the bachelor’s degree in Engineering and to earn the master’s degree in Business Administration (MBA) with just one additional year of study.

## **Five-Year Bachelor/MSEM Program**

This program allows undergraduate Electrical and Computer Engineering majors in the College of Engineering to accelerate the completion of the bachelor’s degree in Engineering and to earn the master’s degree in Engineering Management (MSEM) with just one additional year of study.

## **Industrial Engineering Major**

### **General Information**

The Industrial Engineering curriculum prepares engineers to design, improve, install, and operate integrated systems of people, materials, and equipment needed by industry, commerce, and society. Industrial engineers prevent anticipated problems as well as solve current problems by applying the principles of engineering science, operations research, computer science, work analysis, product and process design and planning, human factors, quality assurance, and management. The curriculum is designed to provide strength in mathematics, basic science, and engineering science plus a carefully coordinated set of courses that are particularly relevant to the professional industrial engineer.

While providing Industrial Engineering students with a theoretical base, the IE program also emphasizes practical application of engineering principles to real problems and products. The program provides intensive laboratory and hands-on project work sponsored by local companies each year. Students obtain significant hands-on project experience before they graduate.

The program leading to the BSIE degree is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

### **Career Opportunities**

Upon completion, students are prepared to pursue a wide variety of professional opportunities in industrial, commercial, and public service enterprises. The curriculum provides an excellent background for advanced study in industrial engineering, operations research, computer science, engineering management, business administration, law, and other fields.

### **Industrial Engineering Faculty (p. 135)**

The Department of Industrial Engineering and Engineering Management’s primary goal is to effectively teach industrial engineering at the undergraduate level and engineering management at the graduate level. The department is guided by our Advisory Board which consists of Alumni, Faculty from other Industrial Engineering programs, and working professionals from local, regional, and national companies. We are very proud of our students who continue to be very successful sought after individuals who constantly serve as ambassadors for our program. Industrial Engineering (IE) at Western New England University will be a regional and national leader in communicating engineering knowledge and innovation associated with designing, operating, and improving processes for producing and delivering products and

services. Industrial Engineering will educate the utilization of resources, including people, equipment, capital, materials, information, and energy. This will be accomplished by the use of classroom, and laboratory instruction supplemented by repeated exposure to actual industrial projects in “learning beyond the classroom” opportunities.

**Program Mission**

As a strategic partner in alliance with the mission of the University, we strive to educate engineers who have the ability to help their organizations make the most effective use of resources, including people, equipment, capital, materials, information, and energy. Our graduates will enable their organization to be productive, flexible, and customer oriented. They will apply engineering skills to design effective systems and to devise procedures with which to operate these systems. And, they will continuously strive to improve both themselves through continuous education, and their organizations through avoidance and elimination of harmful or wasteful practices. Specifically, IE seeks to:

1. educate engineers who will be successful in their professional careers;
2. educate engineers who understand the metrics of an organization and what it takes to be a successful member of that organization;
3. provide selected research and services to industry and government to meet their specific needs;
4. contribute to the advancement of the IE profession through faculty leadership; and
5. enhance the overall reputation of the College of Engineering and Western New England University.

**Educational Objectives**

The Educational Objectives of the Industrial Engineering program describe the expected achievements of graduates four to six years after graduation. Graduates of the BSIE program will achieve the following:

1. successful application of contemporary tools, knowledge, experience, and critical thinking to effectively solve engineering problems;
2. implementation of effective solutions which successfully integrate people, materials, information, equipment, capital, and energy;
3. effective collaboration and communication in individual and team settings;
4. contribute as well-informed, ethical, and dependable members of society; and
5. continually increase their knowledge and experience throughout their career.

**Program Outcomes**

The outcomes that we strive for our students to possess:

1. an ability to apply knowledge of mathematics, science, and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health, and safety, manufacturability, and sustainability;

4. an ability to function on multi-disciplinary teams;
5. an ability to identify, formulate, and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. an ability to apply their broad education toward the understanding of the impact of engineering solutions in a global, economic, environmental, and societal context;
9. a recognition of the need for, and the ability to engage in lifelong learning;
10. a knowledge of contemporary issues; and
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Degree Requirements**

*Freshman Year - Fall Semester*

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.
PHYS 133	Mechanics	4 cr.

**Subtotal: 17**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.

**Subtotal: 17**

**Sophomore Year - Fall Semester**

CHEM 105	General Chemistry I	4 cr.
ME 202	Statics	3 cr.
EE 205	Electrical Engineering I	4 cr.
MATH 236	Differential Equations	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.

**Subtotal: 17**

**Sophomore Year - Spring Semester**

AC 201/HONB 203	Financial Reporting	3 cr.
IE 212	Probability and Statistics	3 cr.
MATH 235	Calculus III	3 cr.
xxx	Mathematics or Basic Science Elective	3 cr.

PH XXX	Ethical Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15****Junior Year - Fall Semester**

IE 308	Work Analysis and Design	3 cr.
IE 312	Engineering Economic Analysis	3 cr.
IE 318	Mathematical Programming for Engineers	2 cr.
IE 326	Production Planning and Control	3 cr.
IE 419	Industrial Engineering Computer Applications	3 cr.
CUL XXX	Cultural Perspective	3 cr.

**Subtotal: 17****Junior Year - Spring Semester**

ME 322	Manufacturing Processes	3 cr.
IE 315	Quality Control and Engineering Statistics	3 cr.
IE 328	Lean Six-Sigma for Engineers	2 cr.
IE 334	Computer Simulation and Design	3 cr.
xxx	Technical or Design Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17****Senior Year - Fall Semester**

IE 429	Design and Analysis of Experiments	3 cr.
IE 428	Facility Design & Material Handling	2 cr.
IE 439	Senior Design Projects I	3 cr.
xxx	Technical or Design Elective	3 cr.
GEN XXX	General Elective	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.

**Subtotal: 17****Senior Year - Spring Semester**

IE 420	Industrial Engineering Operations Research	3 cr.
IE 440	Senior Design Projects II	3 cr.
xxx	Technical Elective	3 cr.
xxx	Design Elective	3 cr.
GEN XXX	General Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

1. General Education courses must be selected in such a way to insure that all "perspective of understanding (p. 28)" requirements have been satisfied.

2. Mathematics or Basic Science Electives are biological, chemical, or physical sciences courses or mathematics course 300 level or above.
3. Technical or design electives are engineering, math, or science courses normally numbered 300 or above or courses approved by the department chair.
4. General Elective. Selected on approval of the academic advisor.

Subtotal: 132

Total credit hours required for graduation –132.

The 2.0 required minimum grade point average in the major is based upon all IE courses pursued as a part of the student's degree program. In addition, a minimum grade of C is required in all IE design projects.

**Five-Year Bachelor/MSEM Program**

This program allows undergraduate Industrial Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Industrial Engineering (BSIE) and to earn the master's degree in Engineering Management (MSEM) with just one additional year of study.

**Five-Year Bachelor/MBA Program**

This program allows undergraduate Industrial Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Industrial Engineering (BSIE) and to earn the master's degree in Business Administration (MBA) with just one additional year of study.

**Mechanical Engineering Major****General Information**

Mechanical engineering is one of the broadest and most diverse of the engineering disciplines and affects all aspects of our lives. It involves the application of science and technology essential to industry, government, environment, and society. Mechanical engineers design, analyze, build, test, and control mechanical devices and systems. They are involved in the design and development of automobiles, airplanes, satellites, robots, power plants, machine tools, material handling systems, medical devices and instrumentation, communications equipment, semiconductor devices, heating and air-conditioning systems, consumer products, and alternative energy systems. Mechanical engineers contribute on interdisciplinary teams to work in emerging areas such as advanced manufacturing processes, mechatronics, nanotechnology and green engineering technology. Mechanical engineering is generally recognized as the engineering discipline that offers the broadest choice of technical career directions.

The Mechanical Engineering curriculum provides a thorough background in thermal and mechanical systems and mechanical design. By selecting an appropriate group of technical and design electives, a student can concentrate in either thermal and fluid science or mechanical design. Thermal and fluid science electives include courses related to energy conversion, aerodynamics, introduction to flight, and turbomachinery design. Mechanical design electives include courses in stress analysis and computer-aided design, material selection, and metrology. The coursework is coupled with extensive practical hands-on experience in modern well-equipped laboratories. The use of computers to aid in engineering analysis and design is emphasized throughout the curriculum.

Students can choose to study either the broad areas of thermal-fluid sciences or mechanical design or select from two options: 1) Green Engineering Sequence with courses in renewable energy, alternative energy systems, and green engineering; and 2) Mechatronics Engineering Concentration that is a blend of mechanical and electrical engineering. The program leading to the BSME degree is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

**Career Opportunities**

Mechanical engineers are employed in all types of industry and government. They work in research, product development, product design, manufacturing, consulting, and sales. Our graduates are employed at Allston Power, UTC Aerospace Systems, Disney, FloDesign, Goodrich, Northrup Grumman, Pratt and Whitney, United Technologies Research Center, General Dynamics, Boeing, Lockheed-Martin, Otis, Carrier, Hasbro-Bradley, General Motors, NASA, Electric Boat, Andersen Consulting, General Electric, Smith and Wesson, American Saw, Northeast Utilities, Rolls Royce, Areva, Gerber Scientific Research, Spalding Sports Worldwide, Sikorsky, Westinghouse, BAE systems, and many others. Mechanical Engineering graduates have also become physicians and patent attorneys. Mechanical engineers occupy executive positions in many large corporations and others have gone on to become entrepreneurs and founded their own companies.

**Design Experience**

Students are introduced to engineering design in the freshman year; sophomore, junior, and senior courses provide progressively more sophisticated design experiences within the student’s discipline. All programs are culminated by a capstone Senior Design Project course in which a student works on an independent project under the supervision of a faculty advisor. A majority of the projects involve a collaboration with an industry partner. A student who selects one of these topics has the opportunity to work with the industrial sponsor in an actual engineering experience.

**Electives**

Electives supplement the engineering student’s technical program. These electives must be selected in such a way that all General Education “perspective of understanding” requirements are covered. In addition, technical, design, and general electives provide the opportunity for specialization within a chosen field. The student’s departmental faculty advisor must approve the selection of electives from engineering, mathematics, science, or business.

**Vision**

The vision of the Department of Mechanical Engineering is to be regionally, nationally, and internationally recognized in providing mechanical engineering education, leading to well qualified engineers who are innovative, immediate contributors to their profession and successful in advanced studies.

**Mission**

The mission of the Department of Mechanical Engineering is to educate, prepare, inspire and mentor students to excel as professionals and to grow throughout their careers in the art, science, and responsibilities of engineering. This is accomplished by:

- providing the facilities and environment conducive to a high quality education, well grounding the students in the fundamental principles of engineering and preparing them for diverse careers; and
- engaging in academic and scholarly activities, which strengthen the program’s regional, national, and international reputation.

**Educational Objectives**

The objectives of the Mechanical Engineering program are to produce graduates whose careers and professional behavior are marked consistently by:

1. technical competency in solving engineering problems, consistent with the ethics of the profession, and serving the needs of local, national, and multinational communities and enterprises with concern for social, economic, and environmental constraints;
2. advancement in their professional careers, including increased technical or managerial responsibility, and the attainment of promotions and leadership positions;
3. successful management of engineering projects of varying scope;
4. effective technical and non-technical communication and teamwork; and
5. a commitment to continuing professional education.

**Program Outcomes**

Accordingly, the Program Outcomes of the Department of Mechanical Engineering are to educate graduates who by the time of graduation will be able to demonstrate:

1. an ability to apply knowledge of mathematics, science, and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. an ability to design a system, component, or process to meet desired needs;
4. an ability to function on multidisciplinary teams;
5. an ability to identify, formulate, and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. an ability to apply their broad education toward the understanding of the impact of engineering solutions in a global and societal context;
9. a recognition of the need for, and the ability to engage in life-long learning;
10. a knowledge of contemporary issues; and
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Mechanical Engineering Faculty (p. 135)**

**Degree Requirements**

**Freshman Year - Fall Semester**

ENGL 132	English Composition I	3 cr.
ENGR 102	First Year Engineering Seminar	1 cr.
ENGR 103	Introduction to Engineering	4 cr.
MATH 133	Calculus I	4 cr.
PHYS 133	Mechanics	4 cr.
PEHR 151	Personal Health and Wellness	1 cr.

**Subtotal: 17**

**Freshman Year - Spring Semester**

ENGL 133	English Composition II	3 cr.
ENGR 105	Computer Programming for Engineers	2 cr.
ENGR 110	Data Acquisition and Processing	3 cr.
MATH 134	Calculus II	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.
PEHR 153-199	Lifetime Activity	1 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Fall Semester**

CHEM 105	General Chemistry I	4 cr.
EE 205	Electrical Engineering I	4 cr.
MATH 236	Differential Equations	3 cr.
ME 202	Statics	3 cr.
SBP XXX	Social/Behavioral Perspective	3 cr.
		<b>Subtotal: 17</b>

**Sophomore Year - Spring Semester**

IE 212	Probability and Statistics	3 cr.
MATH 235	Calculus III	3 cr.
ME 203	Dynamics	3 cr.
ME 205	Measurement Computing	2 cr.
ME 208	Mechanics of Materials	3 cr.
LBC 2XX	Learning Beyond the Classroom	No cr.
PH XXX	Ethical Perspective	3 cr.
		<b>Subtotal: 17</b>

Subtotal: 68

**Mechanical Engineering Course of Study****Degree Requirements****Junior Year - Fall Semester**

MATH 350	Engineering Analysis I	3 cr.
ME 303	Thermodynamics I	3 cr.
ME 309	Materials Science	3 cr.
ME 311	Mechatronics	3 cr.
ME 313	Mechanical Laboratory I	2 cr.
CUL XXX	Cultural/Aesthetic Perspective	3 cr.
		<b>Subtotal: 17</b>

**Junior Year - Spring Semester**

ME 304	Thermodynamics II	3 cr.
ME 314	Mechanical Laboratory II	2 cr.
ME 316	Fluid Mechanics	3 cr.
ME 320	Mechanical Vibrations	3 cr.

	Engineering/Science Elective	3 cr.
HIST XXX	Historical Perspective	3 cr.
		<b>Subtotal: 17</b>

**Senior Year - Fall Semester**

ME 417	Heat Transfer	3 cr.
ME 425	Design of Machine Elements	3 cr.
ME 423	Product Development and Innovation	3 cr.
ME 439	Professional Awareness	1 cr.
ME 449	Computer-Aided Engineering	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
		<b>Subtotal: 16</b>

**Senior Year - Spring Semester**

IE 312	Engineering Economic Analysis	3 cr.
ME 440	Senior Design Projects	3 cr.
GEN XXX	General Elective	3 cr.
xxx	Design Elective	3 cr.
xxx	Engineering Elective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.
		<b>Subtotal: 15</b>

1. *General Education courses must be selected in such a way to insure that all "perspectives of understanding (p. 28)" requirements have been satisfied.*
2. *An engineering, math, or science course usually numbered 300 or above selected from a list published by the Mechanical Engineering Department and approved by the faculty advisor.*
3. *A design elective is selected from a list published in each semester's course schedule.*
4. *An engineering course usually numbered 300 or above and approved by the faculty advisor.*
5. *General Elective selected on approval of the academic advisor.*

Total credit hours required for graduation– 133.

The 2.0 required minimum grade point average in the major is based upon all ME courses pursued in the student's degree program.

Total Credit Hours: 65

**Green Engineering Sequence**

As the growth of the world's populations and economies puts an ever increasing strain on the social and physical environment, today's engineers are faced with developing solutions that use renewable energy sources, reduce waste energy, minimize the impact on the environment, reduce poverty in the world, and provide prosperity for all.

In the junior year, a student may choose to remain in the general mechanical engineering course of study or specialize with a focus in Green Engineering.

Green Engineering is designed to satisfy the need for mechanical engineers with a knowledge of (1) renewable energy sources such as

wind, water, solar, and geothermal energy, (2) power generation, distribution, and management, (3) energy management, and (4) principles of green engineering.

**Degree Requirements**

In the Junior and Senior years, there are green engineering courses that can be selected to satisfy mechanical engineering program elective requirements, as well as, required mechanical engineering project based courses in which a green engineering component can be included.

**Junior Year-Senior Year**

ME 318	Design of Solar Energy Systems	3 cr.
ME 415	Wind/Water Turbine Fundamentals	3 cr.
ME 423	Product Development and Innovation	3 cr.
ME 440	Senior Design Projects	3 cr.
EE 336	Electrical Energy Systems	3 cr.
EE 338	Electric Drives	3 cr.

**Mechatronics Concentration**

Mechatronics is a modern discipline that transcends the boundaries between Mechanical, Electrical, and Computer Engineering. It is defined as the science of intelligent systems in which engineers integrate mechanical, electrical and computer engineering to design, develop, fabricate and test smart systems that learn over time and become more intelligent. The evolution of this area is particularly a consequence of the tremendous growth in the area of Computers, intelligent sensors and Electronic controllers

Recent rapid growth of mechatronics as an area of engineering has given rise to a significant demand for mechatronics engineers. In the Mechanical Engineering Department at Western New England, our Mechatronics Concentration is helping meet this need by producing engineering graduates who are capable, well-rounded mechatronics designers and system integrators.

In the junior year, a student may choose to remain in the general mechanical engineering course of study or specialize with a concentration in Mechatronics and Systems Integration. The Mechatronics Concentration is designed to satisfy the need for mechanical engineers with a thorough knowledge of (1) transducers, smart sensors, and signal conditioners, (2) Modeling, Analysis and Control Techniques, (3) Pneumatic, Electric, hydraulic and smart actuators incorporating integrated controls, (4) Database management using SQL language (5) Design of Human Machine Interface (HMI), (6) PLC and Embedded Controllers.

**Degree Requirements**

**Junior Year - Fall Semester**

MATH 350	Engineering Analysis I	3 cr.
ME 303	Thermodynamics I	3 cr.
ME 309	Materials Science	3 cr.
ME 311	Mechatronics	3 cr.
ME 313	Mechanical Laboratory I	2 cr.
CUL XXX	Cultural Perspective	3 cr.

**Subtotal: 17**

**Junior Year - Spring Semester**

EE 338	Electric Drives	3 cr.
ME 314	Mechanical Laboratory II	2 cr.
ME 316	Fluid Mechanics	3 cr.
ME 320	Mechanical Vibrations	3 cr.
ME 324	Design of Mechatronic Systems	3 cr.
HIST XXX	Historical Perspective	3 cr.

**Subtotal: 17**

**Senior Year - Fall Semester**

ME 417	Heat Transfer	3 cr.
ME 423	Product Development and Innovation	3 cr.
ME 425	Design of Machine Elements	3 cr.
ME 427	Kinematics and Control of Electro-Mechanical Systems	3 cr.
ME 439	Professional Awareness	1 cr.
ME 455	Applications of Mechatronic Systems	3 cr.

**Subtotal: 16**

**Senior Year - Spring Semester**

IE 312	Engineering Economic Analysis	3 cr.
ME 440	Senior Design Projects	3 cr.
xxx	Engineering Design Elective	3 cr.
ME 449	Computer-Aided Engineering	3 cr.
ILP XXX	Integrated Liberal Professional Perspective	3 cr.
LBC XXX	Learning Beyond the Classroom	No cr.

**Subtotal: 15**

1. General Education courses must be selected in such a way to insure that all "perspectives of understanding (p. 28) requirements have been satisfied.
2. An engineering design elective, usually numbered 3xx or above, selected from a list published by the Department of Mechanical Engineering and approved by the faculty advisor.
3. Select a Senior Design Project topic that contains a mechatronic related component approved by the Department of Mechanical Engineering.

Total credit hours required for graduation: 133.

The 2.0 required minimum grade point average in the major is based on all ME and Mechatronics courses pursued in the student's degree program.

**Five-Year Bachelor/MSME Program**

This program allows undergraduate Mechanical Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Mechanical Engineering (BSME) and to earn the master's degree in Mechanical Engineering (MSME) with just one additional year of study.

### **Five-Year Bachelor/MBA Program**

This program allows undergraduate Mechanical Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Mechanical Engineering (BSME) and to earn the master's degree in Business Administration (MBA) with just one additional year of study.

### **Five-Year Bachelor/MSEM Program**

This program allows undergraduate Mechanical Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree in Mechanical Engineering (BSME) and to earn the master's degree in Engineering Management (MSEM) with just one additional year of study.

## DESCRIPTIONS OF MINOR PROGRAMS

### Minors

In addition to the academic major, which all students must take, students have the option of electing a minor.

To elect a minor or to obtain further information, students should consult the office of the dean of the College of Business for the following minors:

Business

Entrepreneurship

Integrated Marketing Communications

International Business

Interprise Resource Planning with SAP

Marketing

Management studies

— and the office of the dean of the College of Arts and Sciences for all others.

### Requirements

A student must successfully complete all courses specified for the minor and attain a minimum cumulative GPA of 2.00 in the minor.

Additionally, the number of transfer credits that may be used to satisfy course requirements for a minor shall not exceed six credit hours.

### African American Studies Minor

#### Degree Requirements

The minor requirement is 18 credit hours. The following three courses are required:

ENGL 223	African American Literature I	3 cr.
ENGL 224	African American Literature II	3 cr.
HIST 254	Civil War and Reconstruction	3 cr.
		<b>Subtotal: 9</b>

(Other electives at the discretion of the director)

And three courses from the following:

ENGL 341	Caribbean Writers	3 cr.
ENGL 345	Major African American Writers	3 cr.
ENGL 343	Literature of Africa and the African Diaspora	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.
CUL 210	Comparative Race Relations: U.S. and South Africa	3 cr.
HIST 260	The History of Pre-Colonial Africa	3 cr.
		<b>Subtotal: 9</b>

Total Credit Hours: 18

### Art Minor

The minor requirement is 18 credit hours in Art. At least nine credit hours in studio art and six credit hours in Art History/Appreciation.

### Athletic Coaching Minor

#### Degree Requirements

The minor requirement is 18 credit hours, as follows:

PEHR 201	Principles and Practices of Successful Coaching	3 cr.
PEHR 202	Care and Prevention of Athletic Injury/Sport First Aid	3 cr.
PSY 201	Developmental Psychology	3 cr.
PSY 321	Sports Psychology	3 cr.
PSY 313	Learning	3 cr.
or		
SPMN 450	Managing Collegiate/Scholastic Athletic Programs	3 cr.
PEHR 480	Internship in Athletic Coaching	3 cr.
or		
PEHR 481	Internship in Athletic Coaching	3 cr.
		<b>Subtotal: 18</b>

The athletic coaching minor will be offered through the College of Arts and Sciences and be directly administered through the Physical Education program. The minor is interdisciplinary in nature and draws from courses in physical education, psychology, and sport management. The minor provides a cohesive and meaningful academic program for students wishing to pursue the formal study of athletic coaching.

Total Credit Hours: 18

### Biology Minor

#### Degree Requirements

The minor requirement is 18 credit hours, as follows:

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
BIO 108	General Biology II	3 cr.
BIO 118	General Biology Laboratory II	1 cr.
BIO 201	Plant Biology	4 cr.
BIO 213	Ecology	3 cr.
BIO 15X	Natural Science Perspective in Biology	3 crs.
		<b>Subtotal: 18</b>

Total Credit Hours: 18

## Bio-Medical Physics Minor

The requirements for a minor in Bio-Medical Physics are 20 credit hours as follows:

### Degree Requirements

Required PHYS courses 11 credits

PHYS 123	Physics of the Life Sciences 1	4 cr.
PHYS 124	Physics of the Life Sciences 2	4 cr.
	or	
PHYS 133	Mechanics	4 cr.
PHYS 134	Electricity and Magnetism	4 cr.
	And	
PHYS 3XX	PHYS 3xx Requirement	3 cr.
		<b>Subtotal: 11</b>

Additional courses 9 credit hours from following

PHYS 301	Optics	3 cr.
PHYS 3XX	PHYS 3xx Elective	3 cr.
PHYS 3XX	PHYS 3xx Elective	3 cr.
	or	
PHYS 390	Special Topics	1-3 cr.
		<b>Subtotal: 9</b>

6 credit hours of the Additional courses 9 credit hours can be substituted from following

BME 332	Biomedical Imaging	3 cr.
	or	
BME 350	Biomedical Thermal Systems	3 cr.
	or	
BME 451	Biomechanics II	3 cr.
	or	
BME 452	Biofluid Mechanics	3 cr.

Total Credit Hours: 20

## Business Minor

### Degree Requirements

The minor requirement is 18 credit hours, as follows:

AC 201/HONB 203	Financial Reporting	3 cr.
AC 202	Managerial Accounting	3 cr.
BIS 202	Intro to Business Info Systems	3 cr.
FIN 214	Introduction to Finance	3 cr.
MAN 101/ HONB 101	Mgt and Organizational Behavior	3 cr.
MK 200/ HONB 200	Principles of Marketing	3 cr.
		<b>Subtotal: 18</b>

The business minor is not available to students whose major is within the College of Business.

Total Credit Hours: 18

## Chemistry Minor

### Degree Requirements

The minor requirement is 20 credit hours, as follows:

CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
		<b>Subtotal: 8</b>

Plus any one of the following lecture and lab combinations:

CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
	or	
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.
		<b>Subtotal: 4</b>

Plus either set of the two lectures - two laboratory course sequences listed below:

CHEM 209	Organic Chemistry I	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
	or	
CHEM 317	Physical Chemistry I	3 cr.
CHEM 327	Physical Chemistry Laboratory I	1 cr.
CHEM 318	Physical Chemistry II	3 cr.
CHEM 328	Physical Chemistry Laboratory II	1 cr.
		<b>Subtotal: 8</b>

The chemistry minor is open only to students who have completed one semester of college-level physics (PHYS 103 or PHYS 123 or PHYS 133) and one of the following mathematics courses: MATH 109, MATH 112, MATH 123, or MATH 133.

Note: CHEM 314/CHEM 324 requires the organic chemistry sequence as prerequisites. The physical chemistry two lecture - two laboratory course sequence requires CHEM 211/CHEM 221 as a prerequisite.

Total Credit Hours: 20

## Communication Minor

### Degree Requirements

The minor requirement is 18 credit hours, as follows:

COMM 100	Principles of Communication	3 cr.
COMM 102	Introduction to Public Speaking	3 cr.
COMM 340	Business Communication	3 cr.

COMM 320	Small Group Communication	3 cr.
		<b>Subtotal: 12</b>

Plus any two of the following courses:

JRNL 101	Introduction to Journalism	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 315	Language, Power and Communication	3 cr.
COMM 321	Interpersonal Communication	3 cr.
COMM 324	Media Industries, Government, and Society	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.
COMM 348	Intercultural Communication	3 cr.
COMM 356	Global Communication	3 cr.
		<b>Subtotal: 6</b>

Total Credit Hours: 18

### Computer Forensics Minor

#### General Information

The rate of computer crime is increasing at a phenomenal rate and is receiving heightened attention by businesses and the media. There is a corresponding need for computing professionals who are also trained in the field of criminal justice. This minor provides students with a combination of criminal justice and computing skills to enable them to investigate computer crimes. The requirements for a minor in Computer Forensics are 19 credit hours as follows:

#### Degree Requirements

Required CS/IT courses (10 credit hours)

IT 101/CS 101	Introduction to Computing	4 cr.
CS 300	Computer Forensics, Tools and Processes	3 cr.
CS 310	Computer Crime Scene Investigation	3 cr.
		<b>Subtotal: 10</b>

Required CJ courses (9 credit hours)

CJ 101	Introduction to Criminal Justice	3 cr.
CJ 231	Criminal Investigation	3 cr.
CJ 348	Introduction to Cyber Crimes	3 cr.
		<b>Subtotal: 9</b>

Total Credit Hours: 19

### Computer Science Minor

#### Degree Requirements

The minor requirement is 22 credit hours, as follows:

IT 101/CS 101	Introduction to Computing	4 cr.
CS 102/IT 102	Introduction to Programming	4 cr.

CS 200/IT 200	Data Structures	4 cr.
CS 220	Software Development	4 cr.
MATH 251	Advanced Discrete Mathematics	3 cr.
CS 3xx-4xx	Computer Science	3 - 4 cr.
		<b>Subtotal: 22-23</b>

Total Credit Hours: 22

### Criminal Justice Minor

#### Degree Requirements

The minor requirement is 18 credit hours, as follows:

A student must take CJ 101 prior to taking the remaining courses.

CJ 101	Introduction to Criminal Justice	3 cr.
CJ 210/SO 210	Criminology	3 cr.
CJ 211	Corrections	3 cr.
CJ 218	Police and Society	3 cr.
CJ 230	Criminal Law	3 cr.
CJ 232	Criminal Procedure	3 cr.
		<b>Subtotal: 18</b>

Total Credit Hours: 18

### Economics Minor

#### Degree Requirements

The minor requirement is 18 credit hours, as follows:

EC 111	Principles of Microeconomics	3 cr.
EC 112	Principles of Macroeconomics	3 cr.
EC 215	Intermediate Macroeconomics	3 cr.
		or
EC 311	Money and Banking	3 cr.
EC 216	Intermediate Microeconomics	3 cr.
		or
ILP 317	Management Issues for Professionals	3 cr.
		<b>Subtotal: 12</b>

Plus six additional credits at 200 level or higher (three credits of which could be:

ILP 230	Business and the Global Environment	3 cr.
		or
ILP 240	Football without Helmets: Soccer & Rugby	3 cr.
		<b>Subtotal: 6</b>

Total Credit Hours: 18

**Education Minor****Degree Requirements**

The minor requirement is 18 credit hours, as follows.

PSY 101	Introduction to Psychology	3 cr.
PSY 201	Developmental Psychology	3 cr.
PSY 304	Educational Psychology	3 cr.
ED 301	Principles and Problems of Education	3 cr.
		<b>Subtotal: 12</b>

Plus any two of the following education or psychology courses:

ED 333	Independent Study in Education	1-3 cr.
ED 350	Teaching of Elementary Reading and Language Arts	3 cr.
ED 375	Elementary Curriculum and Methods	3 cr.
PSY 307	Psychological Assessment	3 cr.
PSY 313	Learning	3 cr.
PSY 317	Psychology of the Exceptional Person	3 cr.
PSY 322	School Psychology	3 cr.
		<b>Subtotal: 6</b>

Total Credit Hours: 18

**English Minor****Degree Requirements**

The minor requirement is 18 credit hours, as follows:

ENGL 231	British Literature I	3 cr.
	or	
ENGL 232	British Literature II	3 cr.
ENGL 251	American Literature I	3 cr.
ENGL 314	Shakespeare: Plays and Poems	3 cr.
	or	
ENGL 315	Shakespeare: The Tragedies	3 cr.
	or	
ENGL 316	Shakespeare: The Comedies and Histories	3 cr.
ENGL 3XX/4XX	English Elective	3 cr.
ENGL 3XX/4XX	English Elective	3 cr.
ENGL 3XX/4XX	English Elective	3 cr.
		<b>Subtotal: 18</b>

Total Credit Hours: 18

**Enterprise Resource Planning with SAP Minor****Degree Requirements**

The minor requirement is 21 credit hours as follows:

BIS 202	Intro to Bus Information Systems	3 cr.
BIS 221	Statistics for Business Analytics	3 cr.
BIS 312	Quality and Operations Management with SAP	3 cr.
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
BIS 412	Business Analytics with SAP	3 cr.
MAN 370	Project Management	3 cr.
BIS 340	Enterprise Resource Planning Systems	3 cr.
		<b>Subtotal: 21</b>

The minor is not available to students majoring in BIS.

Total Credit Hours: 21

**Entrepreneurship Minor****Degree Requirements**

The minor requirement is 18 credits hours, as follows:

Required Courses (9 credits):

BUS 423	Product Dev. and Innovation	3 cr.
ENTR 251	Entrepreneurship and Innovation	3 cr.
MK 200/HONB 200	Principles of Marketing	3 cr.
		<b>Subtotal: 9</b>

Elective Courses (9 credits):

ENTR 260	Marketing for Entrepreneurs	3 cr.
ENTR 326	Venture Feasibility	3 cr.
ENTR 380	Global Entrepreneurship	3 cr.
FIN 330	Financing Entrepreneurial Ventures	3 cr.
MK 370	Social Media Marketing	3 cr.
		<b>Subtotal: 9</b>

Not available to students majoring in Entrepreneurship.

Total Credit Hours: 18

**Film Studies Minor****Degree Requirements**

The minor requirement is 18 credit hours as follows:

The following two courses are required:

FILM 102	The History of Film	3 cr.
FILM 103	The Art of Film	3 cr.
		<b>Subtotal: 6</b>

To fulfill the minor, students must take four courses from the following:

FILM 201	Studies in Mainstream Film Genres	3 cr.
FILM 202	The Haunted Screen	3 cr.
FILM 210	Mass Media in Film	3 cr.
FILM 212	Women and Film	3 cr.
FILM 290	Special Topics in Film	1-3 cr.
FILM 312	International Cinema	3 cr.
FILM 320	Introduction to Cinema Production	3 cr.
FILM 340	Director's Signature	3 cr.
FILM 390	Special Topics in Film	1-3 cr.

**Subtotal: 12**

Total Credit Hours: 18

### Forensic Science Minor

#### Degree Requirements

The minor requirement is 30 credit hours as follows:

BIO 107	General Biology I	3 cr.
BIO 117	General Biology Laboratory I	1 cr.
CHEM 105	General Chemistry I	4 cr.
CHEM 106	General Chemistry II	4 cr.
CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CJ 101	Introduction to Criminal Justice	3 cr.
FS 240	Scientific Evidence	3 cr.
FS 201	Introduction to Forensics	4 cr.

**Subtotal: 30**

Note: This minor is not open to Forensic Chemistry or Forensic Biology majors.

Total Credit Hours: 30

### History Minor

#### Degree Requirements

History Minor requirements:

Six HIST courses (18 credits)

At least two HIST courses (6 credits) at 300-level or above

No more than two HIST courses (6 credits) at the 100-level

Total Credit Hours: 18

### Human Resource Management Minor

#### Degree Requirements

The minor requirement is 18 credit hours - as follows:

MAN 323	Human Resource Management	3 cr.
MAN 436	Compensation and Benefits	3 cr.
BL 308	Labor Management Relations	3 cr.
	or	
BL 388	Labor Management Relations in Sport	3 cr.
BL 424	Business Law for Human Resource Management	3 cr.

**Subtotal: 12**

Plus one of the following

MAN 322	Managing a Diverse Workforce	3 cr.
MAN 324	Performance Management	3 cr.

**Subtotal: 3**

Plus one of the following or additional course from above

EC 366	Labor Economics and Human Capital	3 cr.
MAN 422	Conflict Resolution	3 cr.
PSY 302	Organizational Psychology	3 cr.

**Subtotal: 3**

Total Credit Hours: 18

### Information Technology Minor

#### Degree Requirements

The minor requirement is 19 credit hours, as follows:

Required IT courses (13 credit hours)

IT 102/CS 102	Introduction to Programming	4 cr.
IT 230	Introduction to Operating Systems and Script Development	3 cr.
IT 250/BIS 413	Data Communications and Networks	3 cr.
IT 300/BIS 321	Database Management Systems	3 cr.

**Subtotal: 13**

In addition to the required above four courses, students must complete two courses from the following courses.

IT 310	System Operation and Administration	3 cr.
IT 330	Network Security Concepts	3 cr.
IT 350	Web Systems Development	3 cr.
IT 360	Network Management and Operations	3 cr.
IT 410	Advanced Topics in System Administration	3 cr.

IT 430	Advanced Topics in Network Security	3 cr.
IT 450	Advanced Topics in Web Design and Development	3 cr.
IT 460	Advanced Topics in Network Administration	3 cr.

**Subtotal: 6**

IT 350 and IT 450: These two courses have additional prerequisites of CS 102/IT 102 and IT 240.

Total Credit Hours: 19

### **Integrated Marketing Communication (IMC) Minor**

#### **Degree Requirements**

The minor requirement is 18 credit hours as follows:

MK 200/HONB 200	Principles of Marketing	3 cr.
MK 301	Buyer Behavior	3 cr.
MK 317	Promotional Strategy	3 cr.
MK 340	Promotion Design and Applications	3 cr.
MK 422	Campaign Planning and Mgt	3 cr.
COMM 285	Introduction to Public Relations	3 cr.

**Subtotal: 18**

The IMC minor is not available to students whose major is in the College of Business.

Total Credit Hours: 18

### **International Business Minor**

#### **Degree Requirements**

The minor requirement is 15 credit hours - as follows:

INTB 251	Introduction to International Business	3 cr.
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**Subtotal: 3**

Plus two of the following

MAN 311	International Management	3 cr.
FIN 322	International Finance	3 cr.
MK 311	Multinational Marketing	3 cr.

**Subtotal: 6**

Plus two of the following:

CUL 315/BUS 315	International Practicum	3 cr.
COMM 348	Intercultural Communication	3 cr.
EC 371	International Monetary Economics	3 cr.

EC 372	International Trade	3 cr.
POSC 203	International Relations	3 cr.
POSC 340	International Law and Organization	3 cr.

**Subtotal: 6**

Students who do not take FIN 322 must select EC 371 or EC 372.

ILP 230 is recommended.

Total Credit Hours: 15

### **International Studies Minor**

#### **Degree Requirements**

The minor requirement consists of seven courses (21 credit hours), as follows:

GEOG 102	World Regional Geography I: Highly Developed Countries	3 cr.
	or	
GEOG 103	World Regional Geography II: Less Developed Countries	3 cr.
	And	
HIST 206	World History, 1500CE-Present	3 cr.
	or	
INST 101/POSC 101	Intro to Contemp Global Issues	3 cr.
	And	
POSC 203	International Relations	3 cr.

**Subtotal: 9**

Plus any one course from the International Studies Curriculum list Group B or foreign language

**Subtotal: 3**

Plus any three courses from the International Studies Curriculum list Group C or foreign language

**Subtotal: 9**

Total Credit Hours: 21

### **Journalism Minor**

#### **Degree Requirements**

The minor requirement is 18 credit hours as follows:

COMM 205	Mass Communication	3 cr.
JRNL 101	Introduction to Journalism	3 cr.
JRNL 205	Journalism Ethics	3 cr.
JRNL 250	Intermediate Journalism	3 cr.

**Subtotal: 12**

Plus any two 300-level or higher JRNL courses

JRNL 360/COMM 360	Sportswriting	3 cr.
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JRNL 370/ COMM 371	Advanced Radio Reporting	3 cr.
		<b>Subtotal: 6</b>

Total Credit Hours: 18

**Latin American Studies Minor**

**Degree Requirements**

The minor requirement is 18 credit hours, as follows:

SPAN 101	Elementary Spanish I	3 cr.
	And	
SPAN 102	Elementary Spanish II	3 cr.
	or	
SPAN 203	Intermediate Spanish I	3 cr.
	And	
SPAN 204	Intermediate Spanish II	3 cr.
CUL 250	Latin American Civilization	3 cr.
HIST 170	Colonial Latin American History	3 cr.
	or	
HIST 171	Modern Latin American History	3 cr.
SO 211	Race and Ethnicity	3 cr.
	or	
SO 326	Sociology of Culture	3 cr.
		<b>Subtotal: 18</b>

A demonstrated proficiency in Spanish or Portuguese may allow one to waive certain language requirements and to add courses in Latin American government or history. These would require the approval of the dean.

Total Credit Hours: 18

**Management Minor**

**Degree Requirements**

The minor requirement is 18 credit hours as follows:

Required courses (nine credit hours):

MAN 101/HONB 101	Management and Organizational Behavior	3 cr.
MAN 201	Interpersonal Skills for Leading	3 cr.
MAN 323	Human Resource Management	3 cr.
		<b>Subtotal: 9</b>

Plus nine credit hours from among the following

AEM 250	Introduction to Arts & Entertainment Organizations	3 cr.
MAN 305	Managing for Sustainability	3 cr.
MAN 311	International Management	3 cr.
MAN 331	A Humanistic Approach to Leadership and Management	3 cr.

MAN 341	Leadership and Change	3 cr.
MAN 370	Project Management	3 cr.
MAN 422	Conflict Resolution	3 cr.
		<b>Subtotal: 9</b>

The Management minor is not available to students who are majoring in Management and Leadership, Sport Management, or Arts and Entertainment Management.

Total Credit Hours: 18

**Marketing Minor**

**Degree Requirements**

The minor requirement is 18 credit hours as follows:

MK 200/HONB 200	Principles of Marketing	3 cr.
MK 301	Buyer Behavior	3 cr.
MK 318	Marketing Research	3 cr.
	or	
BIS 412	Business Analytics with SAP	3 cr.
MK 421	Marketing Management	3 cr.
MK 3XX/4XX	Marketing Elective	3 cr.
	And	
BUS 423	Product Development and Innovation	3 cr.
	or	
MK 3XX/4XX	Marketing Elective	3 cr.
		<b>Subtotal: 18</b>

The minor is not available to students majoring in Marketing or Marketing Communication/Advertising.

Total Credit Hours: 18

**Mathematical Sciences Minor**

**Degree Requirements**

The minor requirement is 18 or 20 credit hours, as follows:

MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
	or	
MATH 133	Calculus I	4 cr.
MATH 124	Calculus II For Management, Life, and Social Sciences	3 cr.
	or	
MATH 134	Calculus II	4 cr.
MATH 251	Advanced Discrete Mathematics	3 cr.
	or	
MATH 281	Foundations of Mathematics I	3 cr.
		<b>Subtotal: 9-11</b>

Three additional courses numbered 282 or above and at least one of which must be:

MATH 418	Introduction to Modern Algebra	3 cr.
	or	
MATH 421	Real Analysis	3 cr.
	or	
MATH 412	Introduction to Topology	3 cr.
		<b>Subtotal: 9</b>

Total Credit Hours: 18-20

## Media Minor

### Degree Requirements

The minor requirement is 18 credit hours, as follows:

COMM 100	Principles of Communication	3 cr.
COMM 205	Mass Communication	3 cr.
COMM 241	Video Production I: Introduction to Digital Editing	3 cr.
COMM 250	Video Production II	3 cr.
		<b>Subtotal: 12</b>

Plus any two of the following courses:

JRNL 101	Introduction to Journalism	3 cr.
COMM 251	Video Communication	3 cr.
COMM 285	Introduction to Public Relations	3 cr.
COMM 324	Media Industries, Government, and Society	3 cr.
COMM 352	Multimedia Communication	3 cr.
COMM 356	Global Communication	3 cr.
		<b>Subtotal: 6</b>

Total Credit Hours: 18

## Music Minor

### Degree Requirements

Two required 3-credit MUS courses (6 credits)

MUS 101	Introduction to Music	3 cr.
MUS 201	Basic Music Theory and Comp	3 cr.
		<b>Subtotal: 6</b>

Four credits in MUS performance selected from:

MUS 141-148	University Singers	1 cr.
MUS 151-158	Campus Chorus	1 cr.
MUS 161-168	Pep Band	1 cr.
MUS 181-188	Concert Band	1 cr.
		<b>Subtotal: 4</b>

Eight additional credits in MUS performance selected from:

MUS 110	Beginning Guitar	3 cr.
MUS 141-148	University Singers	1 cr.

MUS 151-158	Campus Chorus	1 cr.
MUS 161-168	Pep Band	1 cr.
MUS 181-188	Concert Band	1 cr.
MUS 210	Intermediate Guitar	3 cr.
MUS 290	Special Topics in Music	1-3 cr.
		<b>Subtotal: 8</b>

Total Credit Hours: 18

## Philosophy Minor

The minor requirement is 18 credit hours consisting of any six philosophy courses.

Total Credit Hours: 18

## Political Science Minor

### Degree Requirements

The minor requirement is 18 credit hours as follows:

POSC 102	American National Government	3 cr.
		<b>Subtotal: 3</b>

Plus 15 credit hours of 200, 300, or 400 level political science courses (POSC).

**Subtotal: 15**

Within these course requirements, a student must take at least three credit hours in American politics, international relations, comparative government, and political thought.

Total Credit Hours: 18

## Psychology Minor

The minor requirement is PSY 101 plus 15 additional credit hours in psychology.

### Degree Requirements

Plus 15 credits in psychology courses

**Subtotal: 15**

Requirements List - PSY 101

PSY 101	Introduction to Psychology	3 cr.
		<b>Subtotal: 3</b>

Note: internships, independent study, and undergraduate research may not be used to fulfill these requirements.

Total Credit Hours: 18

## Public Administration Minor

### Degree Requirements

The minor requirement is 18 credit hours selected from the courses listed below:

Required courses (nine hours):

POSC 102	American National Government	3 cr.
POSC 205	Public Administration	3 cr.

POSC 338	Challenges in Local Government Management	3 cr.
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**Subtotal: 9**

Plus any three of the following (nine hours):

POSC 210	State Politics in America	3 cr.
POSC 322	The U.S. Presidency	3 cr.
POSC 325	Constitutional Law	3 cr.
POSC 218	Public Policy in America	3 cr.
POSC 338	Challenges in Local Govt Mgt	3 cr.
POSC 340	International Law and Organization	3 cr.
POSC 350	American Foreign Policy	3 cr.
EC 351	Economics and Government	3 cr.
EC 355	Public Finance	3 cr.
SO 305	The Sociology of Urban Life	3 cr.

**Subtotal: 9**

Total Credit Hours: 18

**Quantitative Economics Minor**

**Degree Requirements**

The minor requirement is 18 credit hours as follows:

MATH 133	Calculus I	4 cr.
	or	
MATH 123	Calculus I for Management, Life, and Social Sciences	3 cr.
EC 117	Principles of Quantitative Economics	3 cr.
EC 215	Intermediate Macroeconomics	3 cr.
EC 216	Intermediate Microeconomics	3 cr.
	or	
ILP 317	Mgt Issues for Professionals	3 cr.
EC 490	Seminar: Issues in Contemporary Economics	3 cr.
EC 2XX/3XX	Economics Elective	3 cr.

**Subtotal: 18**

Total Credit Hours: 18

**Religious Studies Minor**

**Degree Requirements**

The minor requirement is 18 credit hours, as follows:

REL 101	Spirituality and Religion	3 cr.
REL 220	Western Religions	3 cr.
REL 221	Eastern Religions	3 cr.
REL 304/PH 304	Philosophy of Religion	3 cr.

**Subtotal: 12**

Plus 6 credits in 2xx or 3xx level REL courses:

**Subtotal: 6**

Total Credit Hours: 18

**Social Justice Minor**

**Degree Requirements**

The minor requirement is 18 hours, as follows:

Required courses

SW 100	Introduction to Social Work	3 cr.
SW 303	SW Interventive Methods III	3 cr.
SW 313	Social Welfare and Social Policy	3 cr.

**Subtotal: 9**

Plus three of the following courses:

EC 106	The Economics of Poverty and Discrimination	3 cr.
POSC 101/INST 101	Introduction to Contemporary Global Issues	3 cr.
PH 230	Social and Political Philosophy	3 cr.
SW 320	Dynamics of Oppression and Empowerment	3 cr.
SO 410	Social Change	3 cr.
PSY 327	The Psychology of Tolerance, Social Justice and Hate Crimes	3 cr.
COMM 348	Intercultural Communication	3 cr.
BL 424	Business Law for Human Resource Management	3 cr.
ENGL XXX	English Elective	3 cr.
MAN 305	Managing for Sustainability	3 cr.
POSC 218	Public Policy in America	3 cr.
POSC 326	Civil Liberties	3 cr.
PSY 315	Cultural Psychology	3 cr.
SO 201	Social Problems	3 cr.
SO 413	Social Inequality	3 cr.
PSY 317	Psychology of the Exceptional Person	3 cr.
SW 314	Field Instruction in Macro Practice	3 cr.

**Subtotal: 9**

Total Credit Hours: 18

**Social Work Minor**

**Degree Requirements**

The minor requires the following courses:

SW 100	Introduction to Social Work	3 cr.
SW 216	Human Behavior in the Social Environment	3 cr.

PH 210	Ethics for Social Workers	3 cr.
SW 301	Social Work Interventive Methods I	3 cr.
SW 302	Social Work Interventive Methods II	3 cr.
SW 305	The Helping Relationship Project	2 cr.
SW 306	The Helping Relationship Practicum	1 cr.
SW 320	Dynamics of Oppression and Empowerment	3 cr.

**Subtotal: 21**

\*SW 320 prerequisites are SO 101, and junior standing. A similar course can be substituted with approval of chair.  
Subtotal: 21

Total Credit Hours: 21

**Social Work Minor for Criminal Justice Majors****Degree Requirements**

The minor requires the following courses:

SW 100	Introduction to Social Work	3 cr.
SW 204	Social Work and Criminal Justice	3 cr.
SW 216	Human Behavior in the Social Environment	3 cr.
SW 301	Social Work Interventive Methods I	3 cr.
SW 302	Social Work Interventive Methods II	3 cr.
SW 305	The Helping Relationship Project	2 cr.
SW 306	The Helping Relationship Practicum	1 cr.

**Subtotal: 18**

Total Credit Hours: 18

**Sociology Minor****Degree Requirements**

The minor requirement is 19 credit hours, as follows:

SO 101	Introduction to Sociology	3 cr.
SO 201	Social Problems	3 cr.
SO 301/CJ 301	Research Methods	4 cr.
	or	
SO 307/CJ 307	Qualitative Research Methods	4 cr.
SO 2XX-4XX	Sociology Elective	3 cr.
SO 3XX-4XX	Sociology Elective	3 cr.
SO 3XX/4XX	Sociology Elective	3 cr.

**Subtotal: 19**

Total Credit Hours: 19

**Spanish Minor****Degree Requirements**

The minor requirement is 18 credit hours selected from the courses below:

Required five courses (15 hours):

SPAN 203	Intermediate Spanish I	3 cr.
SPAN 204	Intermediate Spanish II	3 cr.
SPAN 305	Advanced Conversational Spanish I	3 cr.
SPAN 306	Advanced Conversational Spanish II	3 cr.
SPAN 325	Goya to Almodovar:Hispanic Culture	3 cr.

**Subtotal: 15**

Choose any one from the following:

CUL 250	Latin American Civilization	3 cr.
SPAN 290	Special Topics in Spanish	1-3 cr.
SPAN 140	Spanish for Social Services	3 cr.
SPAN 130	Spanish for Criminal Justice	3 cr.
SPAN 102	Elementary Spanish II	3 cr.

**Subtotal: 3**

Total Credit Hours: 18

**Theatre Minor****Degree Requirements**

One from ENGL 310, ENGL 314, ENGL 315, ENGL 316 may be substituted for a 3 credit THTR course.

**Subtotal: 12**

Requirements List

The minor requirement is 18 credit hours in THTR, with no more than 6 credits in THTR 151 - THTR 159 and THTR 160- THTR 169.

**Subtotal: 6**

Total Credit Hours: 18

**Women's and Gender Studies Minor**

The Women's and Gender Studies (WGST) minor involves 18 credit hours of coursework. Each student must take courses from a minimum of three different disciplines (Social Work, Sociology, and at least one other).

**Degree Requirements**

There are three required courses:

SW 100	Introduction to Social Work	3 cr.
SO 208	Gender	3 cr.
SW 33X	Independent Study - SW Internship in a setting servicing women	3 cr.

**Subtotal: 9**

Plus any three additional courses from the following list:

CJ 302	Women and the Criminal Justice System	3 cr.
COMM 326	Race, Gender, and Ethnicity in the Media	3 cr.
ENGL 358	Women in Literature	3 cr.
FILM 212	Women and Film	3 cr.
HIST 373	Women In Latin America	3 cr.
LSOC 230/POSC 230	When Cultures Collide	3 cr.
PSY 305	Psychology of Women	3 cr.
SW 320	Dynamics of Oppression and Empowerment	3 cr.

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**Subtotal: 9**

Or any other course with a primary focus on women or gender, dependent upon the approval of the director of the WGST minor program.

\*Although Independent Study in Social Work is the default option, internship experiences housed in other departments can be used subject to the prior approval of the director of the WGST minor.

Total Credit Hours: 18

## DESCRIPTION OF CERTIFICATE PROGRAMS

### Certificate Program in Chemistry

Recognizing the need for qualified workers trained in chemistry to fill positions in the chemical industry, and in other areas such as hospital and environmental laboratories highly dependent upon chemical technology, the University offers a Certificate in Chemistry. The certificate requires the completion of 20 credit hours in chemistry courses and, in addition, the prerequisites to these courses.

#### Degree Requirements

Certificate requirements are as follows:

CHEM 209	Organic Chemistry I	3 cr.
CHEM 210	Organic Chemistry II	3 cr.
CHEM 219	Organic Chemistry Laboratory I	1 cr.
CHEM 220	Organic Chemistry Laboratory II	1 cr.
CHEM 211	Analytical Methods	3 cr.
CHEM 221	Analytical Methods Laboratory	1 cr.
CHEM 312	Instrumental Analysis	3 cr.
CHEM 322	Instrumental Analysis Laboratory	1 cr.
CHEM 314	Biochemistry	3 cr.
CHEM 324	Biochemistry Laboratory	1 cr.

**Subtotal: 20**

Total Credit Hours: 20

### Certificate Program in Communication

Recognizing that communication is a skill much needed today, the University offers a program that strengthens understanding, writing, and speaking.

#### Degree Requirements

Completion of the program requires 18 credit hours (plus any prerequisites).

COMM 100	Principles of Communication	3 cr.
COMM 102	Introduction to Public Speaking	3 cr.
COMM 320	Small Group Communication	3 cr.
COMM 340	Business Communication	3 cr.
COMM 3XX	COMM Elective	3 cr.
COMM 3XX	COMM Elective	3 cr.

**Subtotal: 18**

Total Credit Hours: 18

### Enterprise Resource Planning (ERP) Certificate with SAP

Complete three SAP University Alliance approved courses, with a grade of "C" or higher, and receive a signed certificate of completion from SAP University Alliance.

#### Degree Requirements

Select any three courses from:

BIS 202	Introduction to Business Information Systems	3 cr.
BUS 312/HONB 312	Business Processes and Enterprise Resource Planning with SAP	3 cr.
BIS 312	Quality and Operations Management with SAP	3 cr.
	or	
BIS 412	Business Analytics with SAP	3 cr.

**Subtotal: 9**

## GRADUATE DEGREE PROGRAMS - GENERAL INFORMATION

### Requirements for the Degrees

In order to qualify for a master's degree, a student must:

- Be formally admitted to the degree program.
- Complete the required programs as approved by the dean of the degree-granting college within eight years prior to the date of graduation. All graduate courses transferred into the programs must be taken within this eight-year period as well.
- Apply no more than six credit hours of transfer credit toward 30-credit graduate programs or 12 credit hours of transfer credit toward 600-level courses in any graduate program requiring 36 or more credit hours. Normally, the final courses are to be taken at Western New England University, but in exceptional circumstances students may apply to the appropriate dean to have their final one, two, or three courses approved to be taken elsewhere.
- Take at least 24 credit hours of the master's degree graduate course requirements at the University.
- Attain an overall grade point average of 3.0 or higher. Overall average is the average of all courses that are applied toward the degree. The degree audit shows the grade point average in all courses completed to that point.
- A student continuously enrolled, with no interruption of academic program longer than one semester or two terms absence, is expected to fulfill the requirements of the catalogue current at the time of admission to the University. A student not continuously enrolled is expected to meet the requirements current at the time of readmission. A one-year leave of absence may be granted at the discretion of the appropriate dean.
- Complete an Application for Degree form, which will place the student's name on the graduation list for October, February, May or August graduation as appropriate.

### Grading System

Work in graduate courses is graded as follows:

Superior	A (4.0)		
Above Average	A- (3.7)	B+ (3.3)	
Average	B (3.0)		
Below Average	B- (2.7)	C+ (2.3)	C (2.0)
Failure	F (0)		

### Incomplete Work

An incomplete grade of "I" is awarded only when work is not completed due to circumstances beyond the student's control (such as serious illness). The student has six weeks from the last day of final class and/or examinations to satisfy course requirements. Extension may be granted only for continued circumstances beyond the student's control and must be approved by the instructor and the dean of the college. The "I" becomes "F" for work not completed after the six weeks, or by the conclusion of an approved extension period.

### Academic Performance

Graduate students are expected to maintain a high degree of academic excellence in all of their studies.

A graduate student must have a minimum grade point average of 3.0 in all courses applied toward the degree in order to qualify for a graduate degree. Subject to the approval of the dean of the college within which the student is enrolled, a course with a grade of "C+" or lower may be repeated and the grade point average will be computed on the basis of the most recent earned grade. Credit for the course will be awarded only once. The official transcript will show the complete record.

In cases where a course grade of "F" has been assigned as a penalty for academic dishonesty, the student may not replace that grade in the cumulative GPA. If the student is allowed to retake the course, the resulting grade will be counted as a separate course.

Any student who receives three or more grades of "C+" or lower, or two or more grades of "F" will be dismissed from the program. With regard to dismissal, all grades in all courses are considered. In all cases where a letter of intent to dismiss for academic reasons has been sent, the student has the right to appeal to the Graduate Committee within two weeks of the notice. If an appeal is successful and the student is allowed to continue, the conditions of continuance are spelled out for the student in a letter. If an appeal is unsuccessful, or if no appeal is filed, the student is formally dismissed and such action becomes part of the permanent record.

Graduate students who are conditionally re-admitted must fulfill all the conditions set forth by the appropriate dean at the time of admission. Those conditions are recorded on the degree audit and are duly noted when satisfied.

Graduate courses in the Colleges of Arts and Sciences, Business, and Engineering may be audited on a space-available basis by alumni who have completed bachelor's or master's degrees at Western New England University and who also have the listed prerequisites for the course selected. Alumni may register to audit classes through Student Administrative Services. Courses in the School of Law are not available for alumni auditors. The University does not maintain any record of registration by alumni auditors.

### Withdrawal

#### *W (Withdraw)*

To withdraw from a course the student must complete a drop form or application for complete withdrawal available from the Office of Student Administration Services or the appropriate college. Absence from class without completing the form does not constitute withdrawal and may result in a failing grade.

If the student withdraws from a course within the first two weeks of the semester, or during the period published in the summer session schedule, no grade is assigned. A grade of "W" indicates that the student withdrew after the second week of classes, but before the date published in the Academic 11-week Graduate Term Calendar.

A grade of "W" carries no academic penalty or prejudice.

### Award Of Degrees Policy

The University does not guarantee the award of a degree or a certificate of satisfactory completion of any course of study or training program to students enrolled in any instructional or training program. The award of degrees and certificates of satisfactory completion is conditioned upon satisfaction of all current degree and instructional requirements at the time of such award, compliance with all University policies and regulations, as well as meeting bona fide expectations of the faculty.

## Undergraduate Student Registration for Graduate-Level Business Courses

Several regulations, listed below, apply to undergraduate students wishing to register for graduate courses in business. These regulations apply to students who have not been accepted into the five-year BSBA/MBA, BSBA/MS in Accounting, or BSBA/MS in Organizational Leadership.

- A senior with a minimum cumulative average of 3.0 may elect to take two 600 level courses. The graduate courses may be taken for graduate credit providing they do not exceed the normal load of five courses.
- The graduate course cannot be counted toward the undergraduate degree or in the undergraduate cumulative average.
- The student is not considered a matriculated graduate student until officially accepted by the graduate school.
- Upon acceptance into the graduate program, the student may request transfer of these graduate courses.
- Undergraduates registering for graduate courses are responsible for submitting all proper forms, which are available from the dean's office in the appropriate college.

## Strategic Initiatives

The Center for Strategic and Academic Initiatives' primary goal is international recruitment of students and development of undergraduate and graduate degree programs (traditional, professional, online, alternative/intensive scheduling, on-site, off site, graduate full- and part-time interdisciplinary, "boutique" in nature, in-house or out-sourced, etc) as well as non-credit/certificate programs. The Center will serve as an incubator to implement credit and non-credit programs and degrees that the University determines should be launched to take advantage promptly of opportunities that are sought out or that present themselves and that permit the University to reach new audiences. In addition, the Center and the Office of Professional Development Programs is responsible for the development of new continuing education and non-credit opportunities to meet employer, employee, professional, and personal development needs within our region. This initiative may include the development and implementation of new graduate programs, and the development of other entrepreneurial opportunities.

### Professional Development Programs

The Office of Professional Development offers an array of professional development/education programs. Our conferences, seminars, noncredit courses, and certificate programs are offered through public formats and onsite at organizations. These programs are designed to help professionals quickly update or acquire the job-related skills and information that will enhance their ability to be successful in their chosen professions.

All of our onsite programs can be customized to meet your organization's needs. We welcome the opportunity to meet with you to discuss your specific training needs and design a proposal for your review. If meeting space or computer resources is an issue, let us know and we will be happy to provide these services at our Springfield campus.

For brochure requests and complete details on all of our professional development programs, call us at 1-800-660-9632 or visit our website, [www.wne.edu/pd](http://www.wne.edu/pd).

- Annual Tax Institute and Workshops
- Fundamentals of Engineering/Engineering-in-Training (FE/EIT) Review Course
- Law Enforcement Seminars
- Project Management Forum
- Regional Social Work Conference and Workshops

### Annual Conferences and Certificate Programs

#### *Regional Social Work Conference (29 years)*

This conference is an all-day event comprised of 40 plus individual workshops. These workshops vary in topics ranging from AIDS and domestic abuse to professional burnout and new policies. The conference also provides a forum for information exchange on contemporary issues and networking opportunities for human service professionals throughout New England.

#### *Tax Institute*

The Tax Institute provides high quality written and computer materials, oral presentations from expert speakers on detailed tax structuring, and planning techniques and their practical applications. It addresses timely topics and updates based on changes or developments in the tax law with a focus on the planning opportunities and pitfalls which may result from those changes.

### Professional Development Workshops and Trainings

#### *Fundamentals of Engineering/Engineering-in-Training (FE/EIT) Review Course*

This 10-session course reviews fundamental engineering subjects, mathematics, and basic sciences to prepare engineers for the General Fundamentals of Engineering Exam. University faculty review concepts and solve problems similar in type and complexity as those encountered on the exam. This course is offered in January in preparation for the spring exam.

#### *Project Management Forum*

In collaboration with the SNEC PMI Chapter, the Western Massachusetts Project Management Forum hosts monthly forum meetings on the Western New England University campus for project managers. Creative discussions and guest speakers provide a platform for all area project managers to network, and share ideas, strategies, and solutions to current challenges in the field of project management.

#### *Social Work Workshops*

Western New England University's Bachelor of Social Work program, Office of Professional Development, and Social Work Advisory Council sponsor professional development workshops on current issues in the human service field. These workshops have served the needs of human service professionals from Massachusetts and surrounding states by providing a minimum of five programs yearly for CEUs for social workers; license mental health, CADAC, Marriage and Family Therapist; and PDPs for educators.

For detailed information, visit our website, [www.wne.edu/pd](http://www.wne.edu/pd) or call 1-800-660-9632.

## GRADUATE PROGRAMS

### Graduate Programs in Arts and Sciences

#### Master of Science in Applied Behavior Analysis

Developed in response to the increasing demand for teachers and practitioners trained in best practices for the education and treatment of individuals with autism and related disabilities, the Master's Program in Applied Behavior Analysis at Western New England University will give working professionals the skills to fill this void. Through a combination of coursework and supervised practical experiences, students completing this program will earn a master's degree in Applied Behavior Analysis and meet the Behavior Analysis Certification Board (BACB) requirements for taking the exam to become Board Certified Behavior Analysts.

##### Program Structure

All students will be assigned doctoral-level, Board Certified Behavior Analysts as advisors upon admission to the program. Advisors and students will work collaboratively on the students' professional development. Students are expected to complete 36 total credit hours with 18 credit hours dedicated to core coursework designed to meet the BACB requirements, 9 credit hours of elective coursework, and 9 hours of practicum.

Courses will be offered in three of the four 11-week terms scheduled by the Western New England University Graduate Program (fall, winter, and spring terms). Students will be expected to enroll in 4 credit hours in each term to stay on pace to complete the Master's Program in three years.

##### Degree Requirements

###### Core courses (18 hours)

PSY 501	Principles of Behavior Analysis	3 cr.
PSY 502	Behavioral Assessment	3 cr.
PSY 503	Behavioral Interventions	3 cr.
PSY 505	Methods of Evaluation	3 cr.
PSY 506	Evidence-based Teaching	3 cr.
PSY 509	Ethics and Professional Issues	3 cr.

**Subtotal: 18**

###### Elective courses (9 hours)

PSY 504	Autism and Related Disabilities	3 cr.
PSY 507	Theoretical Foundations	3 cr.
PSY 508	Verbal Behavior	3 cr.
PSY 590	Special Topics in Applied Behavior Analysis	3 cr.

**Subtotal: 9**

###### Practica (9 hours)

PSY 520	520-PSY 528 Supervised Practicum in ABA	1 cr.
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**Subtotal: 9**

##### Admissions

Candidates need to have earned a minimum of a bachelor's degree and must have earned at least a 3.0 grade point average in their

bachelor's program. A combined score of 1000 on the verbal and quantitative sections is required for full admission to the program.

Total Credit Hours: 36

#### Typical Course of Study for the Certificate in Applied Behavior Analysis

##### Degree Requirements

###### Academic Year 1 - Fall

PSY 501	Principles of Behavior Analysis	3 cr.
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###### Academic Year 1 - Winter

PSY 502	Behavioral Assessment	3 cr.
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###### Academic Year 1 - Spring

PSY 503	Behavioral Interventions	3 cr.
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###### Academic Year 1 - Summer

PSY 511	ABA Practicum I	2 cr.
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###### Academic Year 2 - Fall

PSY 504	Autism and Related Disabilities	3 cr.
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PSY 512	ABA Practicum II	2 cr.
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###### Academic Year 2 - Winter

PSY 505	Methods of Evaluation	3 cr.
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PSY 513	ABA Practicum III	2 cr.
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###### Academic Year 2 - Spring

PSY 560	BACB Exam Preparation	1 cr.
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PSY 514	ABA Practicum IV	2 cr.
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###### Academic Year 2 - Summer

Take BA CB exam.

#### Master of Arts in Communication with Concentration in Public Relations

##### Purpose

The University offers an online Master of Arts in Communication with a concentration in public relations. The program is designed to enable public relations specialists and media strategists currently working in the field receive additional training in cutting-edge public relations approaches and advance more quickly in their careers; to help business professionals enhance their knowledge of and facility with current research methods and practices; and to allow working professionals without an undergraduate degree in or professional experience with public relations to develop the skills and background to enter this rapidly-growing field. The program uses a dynamic online environment and small class sizes to help students develop a collegial relationship with their faculty and with other students. Students will regularly sharpen their professional writing, research, and analytical skills; develop approaches to handling public relations crises; and develop a principled approach to practicing public relations. This program is also designed to be in compliance with the Americans with Disabilities Act.

### Program Objectives

The Master of Arts in Communication with a concentration in public relations program is intended to offer students the opportunity to:

- learn modern methods of analyzing the effectiveness of public relations strategies for both for- and non-profit organizations;
- sharpen crisis management skills;
- develop principled approaches to managing public relations campaigns;
- learn how to design and execute public relations strategies for use in multiple media platforms;
- develop writing skills necessary for effective public relations campaign management; and
- become fluent in both qualitative and quantitative research strategies.

### Structure

- The program is designed for part-time participation; all courses are offered online.

To complete the program, a student must take 10 courses, 30 credit hours, at least seven of which must be.

- The program uses the 11-week term calendar to include two courses per semester, summers included, with courses sequenced to run every two years/every three summers.

### Degree Requirements

#### Required Courses - 18 credits

Students must complete thirty (30) credits to receive a Master's degree in Communication with a concentration in Public Relations.

Eighteen (18) credits must be accumulated from required courses and twelve (12) credits must be accumulated from the list of elective courses. Up to six (6) credits may be transferred from other graduate programs with the approval of the program director and department chair. No course can be repeated for credit.

COMM 501	Principles & Practices of Public Relations	3 cr
COMM 505	Writing for Communication Professionals	3 cr
COMM 510	Communication Research Methods	3 cr
COMM 525	Ethics in Public Communication	3 cr
COMM 550	Manufacturing and Managing Public Opinion	3 cr
COMM 570	Crisis Management and Public Relations	3 cr

**Subtotal: 18**

#### Elective Courses - 12 credits

Variable credit courses (COMM 680 and COMM 699) are designed to allow students to move through the program more quickly if they

desire and are in position to execute an independent study project or thesis significant enough in size and scope to warrant more than three

credits. Proposals to undertake a variable credit course must be approved by the program director and have the number of credits they will be worth established prior to registration for such courses.

COMM 605	Strategic Approaches to Public Relations	3 cr
COMM 620	Strategies for Social and Digital Media	3 cr
COMM 625	Public Relations for NonProfits	3 cr
COMM 680	Independent Study in Public Relations	3 - 6 crs
COMM 699	Masters Thesis in Public Relations	3 - 6 crs

**Subtotal: 12**

All courses have connection to the Frameworks and are determined by the backgrounds of the students enrolled in the program.

**Total Credit Hours: 30**

### Master of Fine Arts in Creative Writing

Western New England University's low-residency Master of Fine Arts in Creative Writing offers in-depth study of how fiction is made without the time commitment of a traditional, full-time graduate program. A heightened concentration on craft provides students with exposure to every aspect of writing, including sentence craft, voice development, honing dialogue, shaping beginnings, middles and endings, and makes this program unique. This two-year program is broken down into four components, each comprised of an intense 7-day residency, followed by individualized, mentored study designed to deepen students' understanding of craft through canonic literature read from a creator's perspective.

#### Admission

Candidates seeking admission to the MFA in Creative Writing should possess a baccalaureate degree from an accredited institution of higher education. The review process will focus largely on the candidate's writing sample submitted with the application for admission.

There is no application deadline. Applications are processed on a rolling basis. Once an application is complete, an admission decision will be released in 3-4 weeks. All new MFA candidates admitted to the program will be required to begin with a residency. Two will be offered annually - Summer (July) and Winter (January).

#### Program Structure

The Master of Fine Arts in Creative Writing is a two-year program that consists of four residencies and an individualized curriculum totaling 48 credits. Each year of the program is split into two parts, each consisting of two sequenced graduate terms beginning with a 7-day residency. Residencies take place in the summer and winter. Summer residencies are held on the Western New England campus. Winter residencies alternate between the Berkshires and Dublin, Ireland.

## Degree Requirements

### Academic Year One Part One - Requirements List

Summer Residency  
 Summer and Fall Terms (Tutorial Period)  
 Individualized Curriculum

**Subtotal: 12**

### Academic Year One Part Two - Requirements List

Winter Residency  
 Winter and Spring Terms (Tutorial Period)  
 Individualized Curriculum

**Subtotal: 12**

### Academic Year Two Part One - Requirements List

Summer Residency  
 Summer and Fall Terms (Tutorial Period)  
 Individualized Curriculum

**Subtotal: 12**

### Academic Year Two Part Two - Requirements List

Winter Residency  
 Winter and Spring Terms (Tutorial Period)  
 Individualized Curriculum

**Subtotal: 12**

Total Credit Hours: 48

## Master of Education in Curriculum and Instruction

The University offers an online Master of Education in Curriculum and Instruction. The program is designed to enhance teachers' knowledge and skills with the goal of preparing educational leaders of the future. The program design uses best practices of online learning such as building a virtual learning community, active learning, both formative and summative assessments, a variety of assignments, and varied formats for sharing course content.

### Program Objectives

The Master of Education in Curriculum and Instruction program has been designed with the goal of enhancing the knowledge and skills of teachers in order to make them educators of excellence for the 21st century. Specifically, the program seeks to offer students the opportunity to engage in the following areas of academic and professional learning:

- exploration and application of current research on strategies that increase achievement in all students
- constructivist learning experiences
- experience reading, interpreting and conducting research
- interdisciplinary planning strategies
- increased fluency in technology
- differentiated instruction approaches
- responsive teaching and multicultural awareness
- broaden repertoire of approaches for student assessment and evaluation

### Structure

The program is a part-time graduate program with courses offered in 11-week terms. Two courses are offered each fall, winter, spring, and summer term. All coursework is conducted online. The program requires the completion of 10 courses. All students take a common core of courses: Education Research, Principles of Differentiating Instruction, Contemporary Learning Theory, Mentoring and Professional Development, Multicultural Education, and Assessment Theory and Design. Upon admission to the program students select either the elementary track (Reading Strategies for Struggling Readers (K-6), Integrating Curriculum through Children's Literature, Infusing Content Areas with Art-Elementary, Deepening Mathematical Content Knowledge), or the secondary track (Reading and Writing in the Content Areas, Ethics in Educational Practice, Adolescent Literacy and Young Adult Literature, Infusing Content Areas with Art-Secondary) to complete the required 10 courses. The program permits students to enroll in a limited number of courses without an interest in a degree.

## Degree Requirements

### Elementary Track Requirements

The program requires 10 courses (30 credit hours).

ED 601	Research for Teachers	3 cr.
ED 602	Principles of Differentiating Instruction	3 cr.
ED 603	Contemporary Learning Theory	3 cr.
ED 604	Mentoring and Professional Dev.	3 cr.
ED 605	Multicultural Education	3 cr.
ED 606	Assessment Theory and Design	3 cr.
ED 610	Literacy Strategies for Struggling Readers	3 cr.
ED 611	Integrating Curriculum through Children's Literature	3 cr.
ED 612	Infusing Content Areas with Art-Elementary	3 cr.
ED 613	Deepening Mathematical Content Knowledge	3 cr.

**Subtotal: 30**

### Secondary Track Requirements

ED 601	Research for Teachers	3 cr.
ED 602	Principles of Differentiating Instruction	3 cr.
ED 603	Contemporary Learning Theory	3 cr.
ED 604	Mentoring and Professional Dev.	3 cr.
ED 605	Multicultural Education	3 cr.
ED 606	Assessment Theory and Design	3 cr.
ED 614	Reading and Writing in the Content Areas	3 cr.
ED 615	Ethics in Educational Practice	3 cr.
ED 616	Adolescent Literacy and Young Adult Literature	3 cr.



degree for final professional licensure, who want Professional Development Points, or who are interested in continuing their study of Mathematics. Mathematics majors who have graduated from college but who have not completed the requirements necessary for initial licensure, current teachers who do not have an initial license, and professionals who have decided on a career change may also be interested in the program. (In order to become qualified teachers, in addition to establishing Mathematics competencies, these students, on their own, must take certification tests, fulfill state requirements, and complete a practicum.) The MAMT program is designed to be inspiring, engaging, and challenging.

The broad challenge of mathematics education at all levels is to actively engage students in mathematical thinking. Mathematics education must have immediacy and relevance to attain this goal. Excellent teaching of mathematics occurs when the teacher has a broad-based, in-depth understanding of content coupled with an understanding of how pedagogy and technology can significantly enhance learning environments. This program is structured so that the scholar-teachers will be active participants in a learning process committed to content, pedagogy, and technology.

### Program Objectives

The MAMT program provides instruction and support for scholar-teachers in achieving the following objectives. It is our purpose that our students:

- 1) Learn mathematical habits of mind
  - a. Correctly apply inductive and deductive reasoning skills.
  - b. Demonstrate correct use of formal mathematical language and ability to compose a mathematical proof.
  - c. Demonstrate the ability to successfully apply mathematical computations and algorithms.
  - d. Understand the connections between different branches of mathematics, as well as between mathematics and other disciplines.
- 2) Demonstrate fluency in mathematical communication/link content knowledge to classroom experience.
  - a. Write about mathematics correctly and in a clear manner.
  - b. Develop proficiency in introducing advanced mathematical concepts to the classroom.
- 3) Use technology relevant to mathematics.
  - a. Use relevant and current technology to aid the understanding of new mathematical concepts, to solve difficult problems, and to communicate mathematics effectively.

### Structure

The program is a part-time graduate program with courses offered in the fall, winter, spring, and summer 11-week terms. One or two mathematics courses are typically offered per term, running two days a week, late afternoon or early evening, at hours convenient for the expected teacher audience. The courses will be sequenced to run every three years, so that it would be possible to complete all degree requirements in about two years. The degree requires the completion of 10 courses. The program also allows students to commit to a longer period of stay to complete the degree and allows students to enroll in courses without an interest in obtaining the degree if they so desire. Upon admission into the program, the student will be assigned a faculty advisor who will work closely with the student in identifying a curriculum that best suits the objectives and needs of the student.

### MAMT Requirements

The program requires 10 courses (30 credit hours), at least five of which must be core mathematics courses and at most five of which can be non-core mathematics courses. Students will be required to have an overall GPA of 3.00 or better to become a degree candidate.

### Degree Requirements

#### Core Mathematics:

MAMT 550	Discrete Mathematics	3 cr.
MAMT 552	Geometry Revisited	3 cr.
MAMT 554	Number Theory	3 cr.
MAMT 556	Graph Theory	3 cr.
MAMT 561	Probability	3 cr.
MAMT 564	Analysis	3 cr.
MAMT 566	Algebraic Structures	3 cr.
MAMT 568	Mathematical Modeling	3 cr.
MAMT 570	The Mathematics of Symmetry	3 cr.
MAMT 590-593	Special Topics in Mathematics (if designated as core)	1-3 cr.

**Subtotal: 15**

#### Non-Core Mathematics:

MAMT 540	Calculus Revisited: Theory and Applications	3 cr.
MAMT 542	History of Mathematics	3 cr.
MAMT 543	Linear Algebra	3 cr.
MAMT 544	Creative Problem Solving in Mathematics	3 cr.
MAMT 545	Cryptography	3 cr.
MAMT 546	Chance	3 cr.
MAMT 547	Statistics	3 cr.
MAMT 548	What is Mathematics?	3 cr.
MAMT 590-593	Special Topics in Mathematics (if designated as non-core)	1-3 cr.

**Subtotal: 15**

Total Credit Hours: 30

## Doctoral Program in Behavior Analysis

### General Information

Developed in response to the increasing demand for scientists and practitioners of evidence-based methods for the education and treatment of individuals with autism and related disabilities, the Ph.D. program in Behavior Analysis at Western New England University will give you the skills to fill this void and become a leader in the field. Through a combination of coursework and supervised practical and research experiences, the aim of the Department of Psychology is to train researchers and scientist-practitioners in the discovery, translation, and application of knowledge toward solving human

behavior problems of societal importance (e.g., autism and related disabilities). All classroom course work is done at the New England Center for Children.

### Program Goals and Objectives

The program will allow students to successfully embark on academic and research careers, as well as careers in the delivery of behavior analysis services. Thus, the primary objectives of our program, which elucidate the core knowledge areas and skills all students are expected to know or be able to do prior to graduating, are:

1. To understand the assumptions, goals, and characteristics of behavior analysis
2. To understand the history of the field of behavior analysis and its relation to psychology and science in general
3. To understand the basic principles of learning and the past and current theoretical models which describe and attempt to explain behavior-environment relations
4. To be able to describe and apply effective behavior-analytic procedures for promoting behavior change
5. To be able to describe and apply single-subject and more traditional group designs
6. To be able to determine the influence of relevant independent variables or interventions
7. To be able to describe, depict, and analyze behavioral data and understand the current quantitative models which describe and attempt to explain behavior-environment relations
8. To be able to describe, distinguish, and apply evidence-based practices for a social problem (e.g., problems associated with autism and related developmental disabilities)
9. To understand a professional culture outside of behavior analysis that is united to better understand and improve conditions relevant to a particular social problem
10. To be able to identify, review, critically analyze, and contribute to the behavioral science and psychological literature
11. To be able to articulate and work within the ethical standards of the Behavior Analysis Certification Board and the American Psychological Association
12. To be able to effectively participate in professional behavioral science activities such as presenting, publishing, and reviewing original research
13. To be able to design and implement effective instruction at the college level

### Program Structure

All students are assigned primary and secondary advisors upon admission to the program. The doctoral program operates according to a junior colleague model. In this model, the student and advisor share equal responsibility in planning for the student's academic success and ensuring that the student is making timely progress toward the degree requirements. Thus, advisors assist students as they select required and elective courses, develop their research projects, and prepare for Ph.D. requirements (e.g., assist in selecting a review paper topic). Advisors and students also work collaboratively on the students' professional development. Specifically, advisors assist students in clarifying their goals and attaining substantive experience in teaching (e.g., identifying opportunities and mentoring), research (e.g., ensuring that the student is presenting posters, oral presentations, and is publishing their data where appropriate), and

service (e.g., committee work at the local or national level, serving as a reviewer for a journal).

Students are expected to complete 54 credit hours with at least 27 of those hours being seminars (the remaining 27 may be dissertation credit, behavior analysis practica, and additional elective seminars). Courses will be offered in three of the four 11-week terms scheduled by the Western New England University Graduate Program (fall, winter, and spring terms).

Students are expected to enroll in 7 total credits in three of the four terms in each of the initial two years of the program. Students are expected to enroll in a total of 4 credits in three of the four terms in the third year of the program. Students not finished with the program by the end of the third year register for 1 credit of dissertation continuance in up to three terms of their fourth year and all subsequent years until completion of all degree requirements. The program must be completed within seven years.

## Degree Requirements

### Core courses (15 hours)

PSY 610	Professional Issues, Ethics, and Research Design	3 cr.
PSY 620	Experimental Analysis of Behavior	3 cr.
PSY 630	Descriptive and Inferential Stats	3 cr.
PSY 640	Quantitative Anal. of Behavior	3 cr.
PSY 650	The Philosophy of Behaviorism	3 cr.

**Subtotal: 15**

### Concentration courses (12-21 hours)

PSY 705	Early Intensive Behavioral Intervention	3 cr.
PSY 720	Assessment of Severe Behavior Disorders	3 cr.
PSY 735	Organizational Behavior Mgt.	3 cr.
PSY 740	Developmental Psychology	3 cr.
PSY 750	Advanced Verbal Behavior	3 cr.
PSY 770	Teaching in the College Environment	3 cr.
PSY 790	Special Topics in Behavior Analysis	3 cr.

**Subtotal: 12-21**

### Behavior Analysis Practica (9 hours)

PSY 801-809	Behavior Analysis Practica	1 cr.
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**Subtotal: 9**

### Dissertation Research (9-18 hours)

PSY 851-856	Dissertation Research	3 cr.
PSY 857	Dissertation Research Continuance	1 cr.

**Subtotal: 9-18**

## Example Program of Study

The following table provides the anticipated schedule with which courses and program requirements may be completed.

### Degree Requirements

#### Year 1 - Fall

PSY 610	Professional Issues, Ethics, and Research Design	3 cr.
PSY 620	Experimental Analysis of Behavior	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 1 - Winter

PSY 630	Descriptive and Inferential Statistics	3 cr.
PSY 650	The Philosophy of Behaviorism	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 1 - Spring

PSY 640	Quantitative Analysis of Behavior	3 cr.
PSY 705	Early Intensive Behavioral Intervention	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 2 - Fall

PSY 740	Developmental Psychology	3 cr.
PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

Dissertation Proposal may be submitted\*

#### Year 2 - Winter

PSY 770	Teaching in the College Environment	3 cr.
PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 2 - Spring

PSY 750	Advanced Verbal Behavior	3 cr.
PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

Comprehensive Program of Study or Review Paper may be submitted and defended

#### Year 3 - Fall

PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 3 - Winter

PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

#### Year 3 - Spring

PSY 851-856	Dissertation Research	3 cr.
PSY 801-809	Behavior Analysis Practica	1 cr.

Dissertation may be defended

#### Admissions

Candidates interested in this program need to have earned a master's degree in behavior analysis or be certified as a master's-level behavior analyst by the Behavior Analysis Certification Board. Candidates must also have earned a minimum of a 3.6 grade point average (GPA) in their master's degree program and a combined verbal and quantitative score of 1100 on the Graduate Record Exam (GRE) with neither score being below 500 for full admission. The program accepts students who have met these requirements and who show strong potential as scholars and future leaders in the field of behavior analysis.

#### TIMELI

TIMELI is a collaborative arrangement between The Teachers' Loft located in Holyoke, MA, and Western New England University, offering a post-baccalaureate, alternative route to initial teacher licensure. It is an alternative path to licensure, accredited by the Department of Elementary and Secondary Education for a Massachusetts initial license in secondary education in the following content areas: Biology, Chemistry, English, History, and Mathematics.

#### Program Structure

This program is a part-time graduate program with courses offered in 11-week terms. Students begin in the summer with ED 561, taking one course each term. Candidates who successfully complete each course and fulfill all requirements of field experience can complete this program in one year.

### Degree Requirements

#### Courses

ED 561	Entering the Profession of Teaching	1 cr.
ED 562	Becoming a Teacher in Today's Schools	1 cr.
ED 563	Designing Curriculum through Data Collection and Inquiry	1 cr.
	Classroom Field Experience - non credit	
ED 564	Applying Inquiry Tools: Using Data to Better Practice	1 cr.

Content courses as determined upon admission (Will vary)

ED 571	Culminating Field Experience	1 cr.
ED 572	Culminating Field Experience	2 cr.
ED 573	Culminating Field Experience	3 cr.
ED 574	Culminating Field Experience	4 cr.
ED 575	Culminating Field Experience	5 cr.
ED 576	Culminating Field Experience	6 cr.

Field experience course credits will be determined during individual advising sessions. All students will complete 75 hours of prepracticum field work, and 300 hours of practicum field experience.

Eligible candidates for TIMELI must have a Bachelor of Arts or Bachelor of Science degree from an accredited college or university. An overall grade point average of at least a 2.8 (4.0 scale) is typically required for admission. Candidates will be asked to submit official copies of transcripts for all colleges attended, a current résumé, two letters or recommendation, a personal statement, and a \$30 application fee.

It is highly recommended that candidates for TIMELI take and pass the Communication and Literacy Massachusetts Tests for Educator Licensure (MTEL) prior to beginning the program.

For more information about the MTEL visit <http://www.mtel.nesinc.com>.

All incoming students will have an individual meeting to determine what courses they will need in addition to the pedagogy courses. An advisor will assist candidates throughout the program.

## Graduate Programs in Business

The programs of graduate study offer advanced education to enhance the professional competence of those employed in business or those preparing to enter professional careers. All graduate courses are offered in the evening in an innovative format. All courses are offered online with optional on-campus classes, thus graduate courses can be completed online. Technological integration is achieved through the use of the innovative Kodiak Virtual Classroom, completely developed at Western New England University. The Kodiak Virtual Classroom has become an integral part of all courses regardless of the method in which they are delivered.

Study in the graduate business program will lead to a certificate in Leadership, the Master of Business Administration (MBA), Master of Science in Accounting (MS in Accounting), or Master of Science in Organizational Leadership (MS in Organizational Leadership) degree. There are special dual degree options for students who have been accepted to the Western New England University School of Law (JD/MBA, JD/MSA in Accounting, College of Engineering (MSEM/MBA), or College of Pharmacy (PharmD/MBA).

Note that if a student enrolls in any Dual Degree program, or opts to pursue more than one Business Graduate Degree, only 3 courses (9 credits) are allowed between Business Graduate Degrees. Only 3 courses (9 credits) from other College or School Degrees (Law, Engineering, or Pharmacy) are accepted into a Business Graduate Degree.

## Master of Business Administration

Managers today have to operate in a rapidly changing and uncertain environment, ready for any situation, good or bad, that requires skilled decision-making. Anticipating and responding to these changes in positive ways is what will distinguish the successful manager.

### Program Learning Goals

The Master of Business Administration (MBA) program is designed to develop and enhance the skills of those who hold or aspire to hold management responsibilities within organizations. Students attain a theoretical understanding and demonstrate a practical grasp of the

management skills required to effectively negotiate a turbulent business environment. Knowledge and skills will be developed through theoretical study and experiential activities. Upon completion, successful students in the MBA program will be able to exhibit their knowledge of business and management in a global and multicultural context in the following ways:

### Decision Making Skills and Problem Solving:

apply knowledge of the functional areas of business and integrative approaches for the development of solutions to organizational and management challenges.

### Leadership Skills and Management Skills:

apply a variety of organizing, planning, controlling, team building, and communication skills necessary for effective management and leadership of organizations in globally diverse and dynamic environments.

### Environmental Analysis:

demonstrate the ability to assess and evaluate dynamic internal and external elements of the competitive global environment.

### Ethics and Social Responsibility:

demonstrate an awareness of ethical considerations in the conduct of business and an appreciation of the importance of business ethics and social responsibility in the decision-making process.

### Quantitative Analysis:

demonstrate the ability to apply financial/quantitative analysis tools and models to solve business challenges in Accounting Finance, Business Operations, Marketing, and Strategic Management.

### Technology Awareness:

demonstrate familiarity with concepts in the application of technology to business problems and familiarity with technology tools in support of business problem solving and decision making

### Admissions Standard

As an AACSB International accredited institution, the College of Business requires all applicants to satisfy specific core business knowledge requirements within six months of entry into the graduate business programs. This core knowledge includes an introductory understanding of accounting, finance, and quantitative methods. Additionally, coursework in the MBA program requires a moderate level of proficiency in computer skills, including the use of Microsoft Office (specifically Word and PowerPoint) and the Internet. Of particular importance is an above average knowledge of Excel software skills. Applicants must demonstrate competency in each of the areas mentioned above in one of the following ways:

- Completion of an undergraduate business degree (typically 'B' (3.0) or better average with no grade below a 'C') in relevant core coursework.
- Completion of relevant undergraduate coursework in the following areas with acceptable performance (typically 'B' (3.0) or better average with no grade below a 'C').
  - Accounting: financial reporting
  - Finance: introduction to corporate finance
  - Quantitative Methods: introduction to statistics
- Completion of the Prerequisite Self Study modules available at Western New England University. Applicants may elect to complete self study modules that provide the necessary

background to maximize the student's graduate business education experience. The self study modules are designed to be accessed online, with no required classroom involvement. These modules provide students with access to the prerequisite content material, problem sets for practice, and diagnostic self assessments. Those electing to complete the self study modules will need to validate their learning by successfully passing a final test administered through the modules (notifying the College of Business to confirm exemption from prerequisite).

- Applicants may enroll in the self study modules at any time during the year. The modules are self-paced.

## Degree Requirements

### MBA Program Structure

The MBA degree, earned after 36 credit hours of study, comprises core and elective coursework. Each area of coursework requires the following:

Core requirements: 27 credit hours

Elective requirements: 9 credit hours

Students who meet the admission standards for entry into the MBA program but have not completed the core knowledge requirement will be admitted under Tentative Status. Applicants to the MBA program who are in the process of completing the admission process may take two graduate business courses and work on satisfying the core knowledge requirement concurrently. If core knowledge requirements are not completed, students may not continue to take any additional 600 level courses (beyond two) until the requirements have been completed.

There is an option for students currently enrolled, or accepted to, the Western New England University School of Law to complete both the Juris Doctorate and the MBA in a unique combined degree program. Interested students should contact the School of Law Admissions Office and the College of Business Associate Dean's Office for specific information. There is also an option for students currently enrolled in the Western New England University College of Pharmacy to complete both the PharmD. and the MBA. Students enrolled in Western New England University College of Engineering Master of Science in Engineering Management (MSEM) can complete both the MSEM and the MBA.

## Degree Requirements

Core Course Requirements 27 credit hours

Completion of the following courses is required:

MAN 605	Leadership, Problem Solving and Decision Making	3 cr.
BUS 610	Business and Its Environment	3 cr.
AC 630	Accounting for Decision Makers	3 cr.
FIN 630	Managerial Finance	3 cr.
BIS 610	Information Technology Management and Applications	3 cr.
MAN 610	Organizational Behavior and Theory	3 cr.
BIS 620	Decision Support Models	3 cr.
MK 640	Marketing Management	3 cr.
BUS 680	Strategic Management	3 cr.

**Subtotal: 27**

The final course in the program is designed to integrate the knowledge learned in the core coursework to enhance student understanding of management practice.

Each course is three credits.

### Elective Course Requirements 9 credit hours

Students may chose to take elective courses based on their individual interests and professional needs. Throughout the program, students will be provided with a variety of elective course offerings in accounting, business information systems, finance, general business, management, and marketing. Elective courses can be taken at any time during the program. It is best, however, for students to plan on taking electives later in their MBA study after completing the majority of their foundation coursework.

## Master of Business Administration (MBA) Program Accounting Concentration

### Purpose

For interested students, a concentration in Accounting is available in the MBA program. Students with a background in Accounting can enhance their MBA by learning about relevant current issues and theoretical perspectives or develop their knowledge in areas such as taxation or fraud and legal issues. Students without a background in Accounting can enhance their MBA by gaining a deeper understanding of financial statements and an introductory understanding of relevant accounting issues in law, nonprofit accounting or fraud. In addition to the MBA program learning goals, this concentration has the following learning goals:

- Demonstrate the ability to analyze reported financial performance and the impact of managerial choices on performance.
- Demonstrate the ability to understand and apply various other accounting concepts and areas, depending upon elective coursework chosen.

### Structure

The concentration consists of three courses. Two options are available:

## Degree Requirements

MBA Core courses 27 credit hours

MAN 605	Leadership, Problem Solving and Decision Making	3 cr.
BUS 610	Business and Its Environment	3 cr.
AC 630	Accounting for Decision Makers	3 cr.
FIN 630	Managerial Finance	3 cr.
BIS 610	Information Technology Management and Applications	3 cr.
MAN 610	Organizational Behavior and Theory	3 cr.
BIS 620	Decision Support Models	3 cr.
MK 640	Marketing Management	3 cr.
BUS 680	Strategic Management	3 cr.

**Subtotal: 27**

Required Concentration Courses 9 credit hours  
(Undergraduate Degree Accounting)

AC 622	Accounting Theory & Contemp Issues	3 cr.
AC 6XX	Elective*	6 cr.
		<b>Subtotal: 9</b>

\*Recommended students with undergraduate degree in Accounting replace AC 630 with AC 6xx.

Options for Electives

AC 610	Cost-Based Decision-Making	3 cr.
AC 611	Municipal and Fund Accounting	3 cr.
AC 614	Fundamentals of Corporate and Partnership Tax	3 cr.
AC 620	Advanced Topics in Auditing and Assurance Services	3 cr.
AC 641	Introduction to Fraud	3 cr.
AC 642	Forensic Accounting	3 cr.
BL 640	Law for Accountants	3 cr.

Required-Concentration-Courses-9-credit-hours-Non-  
Accounting-Undergraduate-Degree

AC 650	Financial Accounting	3 cr.
AC 6XX	Elective*	6 cr.
		<b>Subtotal: 9</b>

Options for Electives

AC 611	Municipal and Fund Accounting	3 cr.
AC 641	Introduction to Fraud	3 cr.
BL 640	Law for Accountants	3 cr.
FIN 612	Business Analysis and Valuation	3 cr.

Total Credit Hours: 36

## Master of Business Administration (MBA) Program Leadership Concentration

### Purpose

For interested students, a concentration in Leadership is available in the MBA program. Students with an interest in Leadership can enhance their MBA by learning about relevant current issues and theoretical perspectives or develop their knowledge in areas such as leading change and ethical leadership. In addition to the MBA program learning goals, this concentration has the following learning goal:

- Demonstrate a working knowledge of leadership theory and current leadership best practices.

### Degree Requirements

MBA Core courses 24 credit hours

MAN 605	Leadership, Problem Solving and Decision Making	3 cr.
BUS 610	Business and Its Environment	3 cr.

AC 630	Accounting for Decision Makers	3 cr.
FIN 630	Managerial Finance	3 cr.
BIS 610	Information Technology Management and Applications	3 cr.
MAN 610	Organizational Behavior and Theory	3 cr.
BIS 620	Decision Support Models	3 cr.
MK 640	Marketing Management	3 cr.
BUS 680	Strategic Management	3 cr.
		<b>Subtotal: 27</b>

Required Concentration Courses 9 credit hours  
(Undergraduate Degree Accounting)

MAN 6XX	Elective	9 cr.
		<b>Subtotal: 9</b>

\*Recommended students with undergraduate degree in Accounting replace AC 630 with AC 6xx.

Options for Electives

MAN 600	Foundations of Leadership Practice	3 cr.
MAN 630	Leadership and the Human Experience	3 cr.
MAN 642	Leading Change	3 cr.
MAN 651	Ethical Leadership Practice	3 cr.
MAN 652	Contemporary Issues in Leadership	3 cr.

Total Credit Hours: 36

## Juris Doctor/Master of Business Administration

The College of Business and School of Law at Western New England University have collaborated to offer a program unique to western Massachusetts for those students interested in attaining their MBA while pursuing a career in law. This is a dual degree program, where students completing the requirements for each program will receive two separate degrees, one in business and one in law. Pursuing both degrees allows students to take advantage of cross credits, where nine credits of business coursework can be applied toward the 88 credits required for the JD degree, and, nine credits of law coursework can be applied toward the 36 credits required for the MBA degree.

This is a structured program designed to meet the guidelines delineated by the American Bar Association and AACSB International accreditation. Candidates for the program must have a four-year undergraduate degree from an accredited college or university. Students are required to apply to both the MBA program through the College of Business and the J.D. program through the School of Law. Those interested in this degree option should contact the School of Law Admission Office and College of Business Associate Dean's Office for specific information on application for admissions.

## Pharmacy Doctorate/Master of Business Administration

The Colleges of Business and Pharmacy at Western New England University have collaborated to offer a program unique to western Massachusetts for those students interested in attaining their MBA while pursuing a career in pharmacy. This is a dual degree program, where students completing the requirements for each program will receive two separate degrees, one in business and one in pharmacy. Pursuing both degrees allows students to take advantage of cross credits, where 6 credits of business coursework can be applied toward the 148 credits required for the PharmD degree, and, nine credits of pharmacy coursework can be applied toward the 36 credits required for the MBA degree.

This is a structured program designed to meet the guidelines delineated by the American Council Pharmaceutical Education (ACPE) and AACSB International accreditation. Candidates for the MBA degree must have completed the PharmD degree or have a four-year undergraduate degree from an accredited college or university to be awarded the MBA. Those interested in this degree option should contact the College of Pharmacy Admission Office and College of Business Associate Dean's Office for specific information on application for admissions.

## Master of Science in Accounting (MS in Accounting)

### Purpose

The Master of Science in Accounting degree provides students with the opportunity to develop skills in planning, controlling, evaluation, and analysis that characterize a successful career in accounting. Graduates of this program satisfy the requirements to sit for the CPA exam in Massachusetts. Graduates of this program who have an undergraduate degree in business are also eligible to sit for the CPA exam in Connecticut. Students taking the CPA exam in other jurisdictions must check the requirements of the respective jurisdiction.

### Program Learning Goals

Students will be able to:

1. Demonstrate competency in analytical reasoning and problem solving skills.
  - a. Apply relevant accounting knowledge, quantitative and qualitative decision making skills to resolve accounting-related issues in: financial reporting, cost accounting, auditing, and taxation
  - b. Apply relevant accounting knowledge, quantitative and qualitative skills to critically analyze financial statements.
2. Demonstrate professional perspective in understanding accounting theory and practice.
  - a. Understand the historical development of accounting theory, its impact on contemporary accounting practice, and how it relates to external and internal users.
  - b. Understand the international accounting and auditing issues currently facing the accounting profession.
3. Demonstrate proficiency in using ethical reasoning skills.
  - a. Identify ethical issues faced by accounting professionals.

- b. Describe and analyze ethical perceptions and frameworks for responding to ethical dilemmas.
  - c. Make a choice/evaluation and be able to effectively justify it based on professional codes of conduct and/or social responsibility.
4. Demonstrate effective use of research skills in investigating accounting issues/topics.
  - a. Identify relevant information for the research issue/topic.
  - b. Locate and obtain information using professional accounting literature (e.g., FASB Accounting Standards Codification, IFRS, SAS, AS, IRC, etc.) and professional data bases.
  - c. Resolve new or emerging accounting issues in a global perspective through researching the professional standards and codes

### Admissions Standards

See graduate admissions requirements (p. 11).

### Academic Performance

The academic standards (p. 169) apply to students in the MS in Accounting program with the following exception:

Any student who receives two or more grades of "C+" or lower will be dismissed from the program.

### Structure

The MS in Accounting consists of three areas: undergraduate foundation courses, required accounting courses, and elective courses. These three areas are discussed below.

## Degree Requirements

### Undergraduate Foundation Courses 24 credit hours

AC 201/HONB 203	Financial Reporting	3 cr.
AC 202	Managerial Accounting	3 cr.
AC 305	Financial Reporting II	3 cr.
AC 306	Financial Reporting III	3 cr.
AC 309	Cost Accounting	3 cr.
AC 413	Fundamental of Individual Tax	3 cr.
AC 419	Auditing and Assurance Services	3 cr.
FIN 214	Introduction to Finance	3 cr.

**Subtotal: 24**

Students admitted into the MS in Accounting program must have completed the undergraduate courses with a "B" average or better and no grade below a "C." For purposes of admission only the highest grade achieved in each of the undergraduate courses will be considered. Students who are lacking some or all of the undergraduate foundation courses may be conditionally admitted to the program but must complete all remaining undergraduate core courses within a two-year period. During this time they will be allowed to take no more than two graduate courses toward the MS in Accounting degree. Grades on the undergraduate core courses taken after admission to the program will not be included in the GPA calculations of the program. The GPA calculation of the MS in Accounting program will be based solely on graduate coursework.

**Required Courses 21 credit hours**

AC 610	Cost-Based Decision-Making	3 cr.
AC 611	Municipal and Fund Accounting	3 cr.
AC 614	Fundamentals of Corporate and Partnership Tax	3 cr.
AC 620	Advanced Topics in Auditing and Assurance Services	3 cr.
AC 622	Accounting Theory & Contemp Issues	3 cr.
FIN 612	Business Analysis and Valuation	3 cr.
FIN 630	Managerial Finance	3 cr.

**Subtotal: 21**

In addition to these courses, students complete their degree program by choosing electives or a concentration. The concentration is Forensic Accounting and Fraud Investigation.

**Electives 9-12 credit hours**

Students who do not pursue a concentration may complete their degree requirements by taking 9-12 credits of business electives.

Students who have not earned 24 undergraduate credit hours in non-accounting business courses are required to complete three graduate business courses (9 credit hours). These may be either accounting or non-accounting courses. (Other than AC 630)

Students who have not earned 24 undergraduate credit hours in non-accounting business courses are required to complete four non-accounting graduate business courses (12 credit hours). These courses may not begin with an AC prefix.

Total Credit Hours: 57-60

**Forensic Accounting and Fraud Investigation Concentration****Concentration Description**

The Forensic Accounting and Fraud Investigation concentration offers additional coursework in fraud investigation accounting, forensic accounting, and litigation support.

In addition to the MS in Accounting program learning goals, this concentration has the following learning goals:

- Demonstrate an understanding of the accounting and legal fundamentals of forensic accounting and fraud investigation.
- Apply the concepts, tools, and techniques employed in financial investigation, including the role of the forensic accountant in litigation support.
- Learn the concepts and techniques employed in financial investigations.

**Degree Requirements****Required Courses****A. MS in Accounting Core courses 21 credit hours**

AC 610	Cost-Based Decision-Making	3 cr.
AC 611	Municipal and Fund Accounting	3 cr.
AC 622	Accounting Theory & Contemp Issues	3 cr.

AC 614	Fundamentals of Corporate and Partnership Tax	3 cr.
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AC 620	Advanced Topics in Auditing and Assurance Services	3 cr.
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FIN 612	Business Analysis and Valuation	3 cr.
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FIN 630	Managerial Finance	3 cr.
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**B. Required Concentration Courses 9 credit hours**

AC 641	Introduction to Fraud	3 cr.
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AC 642	Forensic Accounting	3 cr.
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BL 640	Law for Accountants	3 cr.
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30 Credits Total

**Juris Doctor/Master of Science in Accounting**

The College of Business and School of Law at Western New England University have collaborated to offer a program unique to western Massachusetts for those students interested in attaining their MS in Accounting while pursuing a career in law. This is a dual degree program, where students completing the requirements for each program will receive two separate degrees, one in business and one in law. Pursuing both degrees allows students to take advantage of cross credits, where 12 credits of business coursework can be applied toward the 88 credits required for the JD degree, and, six credits of law coursework can be applied toward the 30 credits required for the MS in Accounting degree.

This is a structured program designed to meet the guidelines delineated by the American Bar Association and AACSB International accreditation. Candidates for the program must have a four-year undergraduate degree from an accredited college or university. Students are required to apply to both the MS in Accounting program through the College of Business and the J.D. program through the School of Law. Those interested in this degree option should contact the School of Law Admission Office and College of Business Associate Dean's Office for specific information on application for admissions.

Total Credit Hours: 88

**Master of Science in Engineering Management/Master of Business Administration (MSEM/MBA)**

The Colleges of Business and Engineering offer a joint MSEM/MBA for those in the engineering profession who want to advance their knowledge and improve their management career opportunities in engineering and technology-oriented companies. By pursuing the combined degree program, students earn the MSEM/MBA in 54 credits, taking advantage of 18 credits that can be applied to both degrees.

Candidates for the program must have a four-year undergraduate degree from an accredited college or university. Those interested in this degree option should contact the Admissions Office for specific information about the application process.

Total Credit Hours: 54

## Master of Science in Organizational Leadership (MS in Organizational Leadership)

### Purpose

The Master of Science in Organizational Leadership (MS in Organizational Leadership) is designed to develop and enhance the knowledge and skills of those who hold or desire to hold leadership positions in organizations. Students are exposed to theories and best practices involving people and processes in organizations.

### Program Learning Goals

A student will be able to:

1. Demonstrate a working knowledge of leadership theory and current leadership best practices.
2. Critically analyze research used to evaluate the unique needs, challenges and opportunities of organizations.
3. Determine alternatives for problem solving and decision-making as they relate to human behavior issues in organizations.
4. Integrate knowledge of ethics and leadership into practice.
5. Apply knowledge of leadership theory, organizational behavior theory, and change theory as they relate to best practices in organizational leadership.
6. Demonstrate self-awareness of personal leadership style, strengths and skills, and how these impact others in an organization and a personal plan for leadership development.
7. Develop knowledge as a result of focused electives that serve students' needs for effectiveness in their organizational practice area or interest.

### Admissions Standards

See graduate admissions requirements (p. 11).

### Academic Performance

The academic standards (p. 169) apply to students in the MS in Organizational Leadership program with the following exception:

Any student who receives two or more grades of "C+" or lower will be dismissed from the program.

### Structure

The MS in Organizational Leadership consists of:

### Degree Requirements

Degree requirements 24 credit hours

MAN 600	Foundations of Leadership Practice	3 cr.
MAN 605	Leadership, Problem Solving and Decision Making	3 cr.
MAN 610	Organizational Behavior and Theory	3 cr.
MAN 630	Leadership and the Human Experience	3 cr.
MAN 642	Leading Change	3 cr.
MAN 651	Ethical Leadership Practice	3 cr.

MAN 652	Contemporary Issues in Leadership	3 cr.
MAN 645	Methods of Organizational Research	3 cr.

**Subtotal: 24**

### Industry Focus 6 credit hours

In addition to these courses, students complete their degree program by choosing an industry focus or other electives.

Through the Industry Focus electives option, students explore in greater depth topics specific to an industry and complete an applied research project. Faculty with appropriate professional or academic expertise are available to work with students interested in the following industries: Armed Forces, Criminal Justice, Healthcare, Higher Education, Human Resources, Law Enforcement, Nonprofits, Primary and Secondary Education (K-12), Public Service, Social Services.

Students who do not pursue an industry focus may complete their degree requirements by taking 6 credits of suitable graduate courses from those offered in the College of Business or the University. Elective courses may be taken at any time during the program. It is best, however, for students to plan on taking electives later in their MS in Organizational Leadership study after completing the majority of their foundation coursework.

MAN 680	Current Industry Issues	3 cr.
MAN 647	Applied Research Project	3 cr.

**Subtotal: 6**

\*MAN 647 may be taken only after completion of MAN 645

Total Credit Hours: 30

## Juris Doctor/Master of Science (JD/MS in Organizational Leadership) in Organizational Leadership

The College of Business and School of Law at Western New England University have collaborated to offer a program unique to western Massachusetts for those students interested in a graduate leadership program while pursuing a career in law. This is a dual degree program, where students completing the requirements for each program will receive two separate degrees, one in business and one in law. Pursuing both degrees allows students to take advantage of cross credits, where 6 credits of business coursework can be applied toward the 88 credits required for the JD degree, and, 6 credits of law coursework can be applied toward the 36 credits required for the MS in Organizational Leadership degree.

This is a structured program designed to meet the guidelines delineated by the American Bar Association and AACSB International accreditation. Candidates for the program must have a four-year undergraduate degree from an accredited college or university. Students are required to apply to both the MS in Organizational Leadership program through the College of Business and the J.D. program through the School of Law. Those interested in this degree option should contact the School of Law Admission Office and College of Business Dean's Office for specific information on application for admissions.

Total Credit Hours: 88

## Pharmacy Doctorate/Master of Science in Organizational Leadership (PharmD/MS in Organizational Leadership)

The Colleges of Business and Pharmacy at Western New England University have collaborated to offer a program unique to western Massachusetts for those students interested in pursuing a graduate degree in leadership while pursuing a career in pharmacy. This is a dual degree program, where students completing the requirements for each program will receive two separate degrees, one in business and one in pharmacy. Pursuing both degrees allows students to take advantage of cross credits, where 6 credits of business coursework can be applied toward the 148 credits required for the PharmD degree, and, nine credits of pharmacy coursework can be applied toward the 30 credits required for the MS in Organizational Leadership degree.

This is a structured program designed to meet the guidelines delineated by the American Council Pharmaceutical Education (ACPE) and AACSB International accreditation. Candidates for the MS in Organizational Leadership degree must have completed the PharmD degree or have a four-year undergraduate degree from an accredited college or university to be awarded the MS in Organizational Leadership. Those interested in this degree option should contact the College of Pharmacy Admission Office and College of Business Associate Dean's Office for specific information on application for admissions.

Total Credit Hours: 88

## Five-year Bachelor/MBA Program

This program allows undergraduate students in the Colleges of Arts and Sciences, Business, or Engineering to accelerate the completion of both the bachelor's and master's degrees in business. Students can earn the popular and valuable Master of Business Administration degree with just one additional year of study. This program is available to students of all majors except for Education and Social Work.

Students will earn both BSBA and MBA degrees within five years of entry as an undergraduate. Undergraduate study in business will satisfy all prerequisite coursework requirements for the MBA program.

### Program Prerequisites:

Satisfied after completing the undergraduate business core (BIS 220, AC 201, and FIN 214) courses with a "B" average or better and no grade below a "C".

### Program Application and Admission Requirements:

This program seeks students who have excelled in their undergraduate studies. Applicants must:

1. Earn an overall GPA of 3.0.
2. Complete the College of Business Graduate Studies application, and essays for the MBA program. All application materials should be submitted to the Admissions Office.
3. Forward scores for the Graduate Management Admission Test (GMAT) to the Admissions Office. Students should seek to score 500 or higher on the GMAT. Students may also apply for a GMAT waiver based on a cumulative GPA of 3.3 or higher at the time of graduation.

Applicants may take up to two graduate courses in the fall term of their senior year. A third graduate course may be taken during the senior year after a student has been admitted.

### Senior Year - Undergraduate program

#### Fall Semester

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: BUS 610 (Fall graduate term)

#### Spring Semester

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: MAN 610 (winter graduate term) or MAN 605 (spring graduate term)

## Degree Requirements

### Fifth Year - Masters Program

#### Summer Term

AC 630	Accounting for Decision Makers	3 cr.
BIS 610	Information Technology Management and Applications	3 cr.
BUS 6XX	Business Elective	3 cr.

#### Fall Term

FIN 630	Managerial Finance	3 cr.
MK 640	Marketing Management	3 cr.
MAN 605	Leadership, Problem Solving and Decision Making	3 cr.
	or	
MAN 610	Organizational Behavior and Theory	3 cr.

#### Winter Term

BIS 620	Decision Support Models	3 cr.
BUS 6XX	Graduate Internship or Small Business Consulting or Business Elective	
BUS 680	Strategic Management	3 cr.

#### Summer Term

BUS 6XX	Business Elective	3 cr.
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\*Business students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This may require students to take courses during summers or winter session to accelerate undergraduate studies.

## Five-year Bachelor/MS in Organizational Leadership Program

This program allows undergraduate majors in the College of Business to accelerate the completion of both their bachelors and Masters of Science in Organizational Leadership. Students will earn both their BSBA and MS in Organizational Leadership degrees within five years of entry as an undergraduate. With this option, students can

complete the MS in Organizational Leadership with just seven months of additional study.

#### **Program Prerequisites:**

No specific course prerequisites.

#### **Program Application and Admission Requirements:**

This program seeks students who have excelled in their undergraduate studies. Applicants must:

1. Earn an overall GPA of 3.0.
2. Complete the College of Business Graduate Studies application and essays, for the MS in Organizational Leadership program. All application materials should be submitted to the Admissions Office.
3. Forward scores for the Graduate Management Admission Test (GMAT) to the Admissions Office. Students may also apply for a GMAT waiver based on a cumulative GPA of 3.3 or higher at the time of graduation.

Applicants may take up to two graduate courses in their senior year. A third graduate course may be taken during the senior year after a student has been admitted.

#### **Senior Year - Undergraduate program**

##### **Fall Semester**

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: MAN 605, MAN 610, MAN 630 or MAN 652 (Fall graduate term)

##### **Spring Semester**

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: MAN 605, MAN 610, MAN 631 or MAN 651 (Winter graduate term), or MAN 605, MAN 610, MAN 640 or MAN 642 (Spring graduate term)

*\*Students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This means that additional credits beyond a normal load must be earned prior to the beginning of the senior year. Students may be enrolled in a maximum of 17 credits at any point in time.*

## **Degree Requirements**

### **Fifth Year - Masters Program**

Students who wish to complete the program on an accelerated basis will take remaining required courses and elective courses over the summer and fall graduate terms.

### **Five-year Bachelor MS in Organizational Leadership Program - Early Acceptance**

Students who have achieved a high level of success in their high school academic performance may apply for conditional early acceptance into either program as freshmen. To qualify for this opportunity, applicants typically have earned a high school GPA of 3.5 or higher, and a combined verbal and quantitative sections score of 1200 or higher on the SAT. Once admitted, students must:

1. Maintain an overall GPA of 3.3 or higher, after their first year

2. Successfully complete an undergraduate degree
3. Earn a "B" average or better with no grade below a "C" in the prerequisite courses.

A detailed program of study can be found in the Five-year-Bachelor MS in Organizational Leadership Program.

#### **Senior Year - Undergraduate program - Fall Term**

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: MAN 630 or MAN 652 (Fall graduate term)

#### **Senior Year - Undergraduate program - Spring Term**

- Up to 12 credits of undergraduate coursework\*
- Six credits of graduate coursework: MAN 631 or MAN 651 (Winter graduate term) or MAN 642 (Spring graduate term)

*\*Students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This means that additional credits beyond a normal load must be earned prior to the beginning of the senior year. Students may be enrolled in a maximum of 17 credits at any point in time.*

#### **Fifth Year Master's Program:**

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: MAN 605, MAN 610, MAN 630 or MAN 652 (Fall graduate term)

## **Five-year Bachelor/MBA Program – Early Acceptance**

Students who have achieved a high level of success in their high school academic performance may apply for conditional early acceptance into either program as freshmen. To qualify for this opportunity, applicants typically have earned a high school GPA of 3.5 or higher, and a combined verbal and quantitative sections score of 1200 or higher on the SAT. Once admitted, students must

1. Maintain an overall GPA of 3.3 or higher, after freshman year.
2. Successfully complete an undergraduate degree
3. Earn a "B" average or better with no grade below a "C" in the prerequisite courses.

A detailed program of study can be found in the Five-year-Bachelor MBA Program (p. 184).

#### **Senior Year - Undergraduate program**

##### **Fall Semester**

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: BUS 610 (Fall graduate term)

##### **Spring Semester**

- Up to 12 credits of undergraduate coursework\*
- Six credits of graduate coursework: MAN 610 (winter graduate term) MAN 605 (spring graduate term)

## Degree Requirements

### Fifth Year - Masters Program

#### Summer Term

AC 630	Accounting for Decision Makers	3 cr.
BIS 610	Information Technology Management and Applications	3 cr.
BUS 6XX	Business Elective	3 cr.

#### Fall Term

FIN 630	Managerial Finance	3 cr.
MK 640	Marketing Management	3 cr.
BUS 6XX	Business Elective	

#### Winter Term

BIS 620	Decision Support Models	3 cr.
BUS 6XX	Graduate Internship or Small Business Consulting or Business Elective	
BUS 680	Strategic Management	3 cr.

\*Business students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This may require students to take courses during summers or winter session to accelerate undergraduate studies. Students may be enrolled in a maximum of 17 credits at any point in time.

### Five-year Bachelor/MS in Accounting

This program allows undergraduate accounting majors in the College of Business to accelerate the completion of both the bachelor's and master's degrees in accounting. Students will earn both their BSBA and for the MS in Accounting program degrees within five years of entry as an undergraduate. With this option students can complete the for the MS in Accounting program with just seven months of additional study. Undergraduate study for accounting majors will satisfy all prerequisite coursework requirements for the for the MS in Accounting program. Students will maintain the same academic advisor throughout their degree programs.

#### Program Prerequisites:

Satisfied after completing the undergraduate business: AC 201, AC 202, AC 305, AC 306, AC 309, AC 330, AC 413, AC 419, and FIN 214, with a "B" average or better and no grade below a "C".

#### Program Application and Admission Requirements:

This program seeks students who have excelled in their undergraduate studies. Applicants must:

1. Earn an overall GPA of 3.0.
2. Complete the College of Business Graduate Studies application and essays, for the MS in Accounting program. All application materials should be submitted to the Admissions Office.
3. Forward scores for the Graduate Management Admission Test (GMAT) to the Admissions Office. Students should seek to score 500 or higher on the GMAT. Students may also apply for a GMAT waiver based on a cumulative GPA of 3.3 or higher at the time of graduation.

Applicants may take up to two graduate courses in their senior year. A third graduate course may be taken during the senior year after a student has been admitted.

#### Senior Year - Undergraduate program:

##### Fall semester

- Up to 12 credits of undergraduate coursework\*,
- Three credits of graduate coursework: FIN 630, AC 610, or FIN 612 (Fall graduate term)

##### Spring Semester:

- Up to 12 credits of undergraduate coursework\*
- Three credits of graduate coursework: FIN 630 or an elective (Winter graduate term), or AC 614, FIN 630, or an elective (Spring graduate term)

*\*Students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This means that additional credits beyond a normal load must be earned prior to the beginning of the senior year. Students may be enrolled in a maximum of 17 credits at any point in time.*

#### Fifth Year - Master's Program:

Students who wish to complete the program on an accelerated basis will take remaining required courses and elective courses over the summer and fall graduate terms.

### Five-year Bachelor/MS in Accounting Program – Early Acceptance

Students who have achieved a high level of success in their high school academic performance may apply for conditional early acceptance into either program as freshmen. To qualify for this opportunity, applicants typically have earned a high school GPA of 3.5 or higher, and a combined verbal and quantitative sections score of 1200 or higher on the SAT. Once admitted, students must

1. Maintain an overall GPA of 3.3 or higher, after freshman year.
2. Successfully complete an undergraduate degree
3. Earn a "B" average or better with no grade below a "C" in the prerequisite courses.

#### Senior Year - Undergraduate program:

##### Fall semester

- Up to 12 credits of undergraduate coursework\*,
- Three credits of graduate coursework: FIN 630, AC 610, or AC 612 (Fall graduate term)

##### Spring Semester:

- Up to 12 credits of undergraduate coursework\*
- Six credits of graduate coursework: BUS 6xx or FIN 630 (Winter graduate term) and BUS 6xx or AC 614 (Spring graduate term)

*\*Students must complete all requirements for the BSBA degree independent of the graduate coursework completed during their senior year. This means that additional credits beyond a normal load must be earned prior to the beginning of the senior year. Students may be enrolled in a maximum of 17 credits at any point in time.*

**Fifth Year - Master's Program:**

Students who wish to complete the program on an accelerated basis will take remaining required courses and elective courses over the summer and fall graduate terms.

**Graduate Leadership Certificate****Entry requirements**

Undergraduate degree with GPA of 3.0 or undergraduate degree with evidence of ability to do graduate-level work

Personal statement of purpose

**Degree Requirements**

Certificate requirements:

MAN 600	Foundations of Leadership Practice	3 cr.
MAN 642	Leading Change	3 cr.
MAN 651	Ethical Leadership Practice	3 cr.
MAN 652	Contemporary Issues in Leadership	3 cr.

**Graduate Programs in Engineering**

The Master of Science programs provide opportunities for coursework in Civil Engineering, Electrical Engineering, Engineering Management, Industrial Engineering, Mechanical Engineering, and business. At the graduate level, programs of study become less structured. Although it is possible to earn a degree strictly on the basis of coursework alone, students with research interests may undertake a three credit hour project or a six credit hour thesis project.

**Master's Advisor**

The progress of each student toward the MS degree is guided and directed by a master's advisor, who is a College of Engineering faculty member nominated by the student and approved by the assistant dean of the College of Engineering. Incoming students seeking the degree are urged to discuss their proposed concentration area of interest with faculty members in that area with a view toward selecting an advisor later in the semester.

**Degree Requirements**

The Master of Science programs require a minimum of 30 credit hours of graduate courses with a "B" (3.0) or better average. A minimum of five courses must be at the 600 level. Six hundred (600) level courses are offered in the evening on an 11-week term.

**Course Selection**

In addition to the required four core courses (12 credit hours), a student may select any graduate level course for which they have the appropriate course prerequisites. The course selection must be approved by the assistant dean of engineering and/or the student's master's advisor.

**Thesis Option—Minimum Curriculum Requirements**

The curriculum for the Master of Science programs (CE, IE, MSEM, MSEE, and MSME) thesis option requires a minimum of 24 credit hours of graduate coursework and six hours of thesis. The student is admitted to candidacy after satisfactory completion of six hours of graduate coursework with a "B" average or better and after selecting an approved thesis topic. Upon completion of the thesis, a final oral defense of it is required.

**Non-thesis Option—Minimum Curriculum Requirements**

The curriculum for the Master of Science program (CE, IE, MSEM, MSEE, and MSME) non-thesis option requires a minimum of 30 credit hours of graduate coursework. Students are admitted to candidacy as soon as possible after satisfactory completion of 6 hours of graduate coursework, maintaining a "B" average or better. The MSEE program requires a comprehensive exam.

**Project Option—Minimum Curriculum Requirements**

The curriculum for the Master of Science program (CE, IE, MSEM, MSEE, and MSME) project option requires a minimum of 27 credit hours of graduate coursework and 3 hours of project. Students are admitted to candidacy as soon as possible after satisfactory completion of 6 hours of graduate coursework, maintaining a "B" average or better. A 3 credit hour project is required. Upon completion of the project, a final oral presentation of it is required.

**Master of Science in Civil Engineering (MSCE)**

The Master of Science in Civil Engineering (MSCE) is a program for civil engineering students wishing to study advanced civil engineering topics beyond the bachelor's level. A student can select from three possible options, from an all-coursework option to a research oriented thesis option, to complete the program.

**Degree Requirements**

Core course requirements

CEE 602	Finite Element and Numerical Analysis	3 cr.
CEE 606	Advanced Green and Sustainable Civil Engineering	3 cr.
	or	
CEE 640	Solid Mechanics	3 cr.
CEE 670	Construction Management	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 605	Engineering Management	3 cr.
	or	
EMGT 648	Project Management	3 cr.

**Subtotal: 15**

**All Course Option**

Combination of 15 credits of following coursework:

CEE 5XX/6XX	500-level/600-level CEE elective course	9 cr. max.
6XX	EE course	3 cr.
	or	

6XX	EMGT course	3 cr.
	or	
6XX	ME course	3 cr.
<b>Subtotal: 15</b>		

**Project Option**

Project with presentation (CEE 680, 3 credits), plus combination of 12 credits of following coursework:

CEE 5XX/6XX	500-level/600-level CEE elective course	9 cr. max.
6XX	EE course	3 cr.
	or	
6XX	EMGT course	3 cr.
	or	
6XX	ME course	3 cr.
<b>Subtotal: 12</b>		

**Thesis Option**

Thesis with presentation (CEE 698/CEE 699, 6 credits total), plus combination of 9 credits of following coursework:

CEE 5XX/6XX	500-level/600-level CEE elective course	9 cr. max.
6XX	EE course	3 cr.
	or	
6XX	EMGT course	3 cr.
	or	
6XX	ME course	3 cr.
<b>Subtotal: 9</b>		

Note: Up to 6 credit hours may be transferred from another school, subject to approval from the CEE Department.

**Civil Engineering Elective Courses**

CEE 620	Subsurface Contaminant Fate and Transport and Remediation	3 cr.
CEE 630	Advanced Geotechnical Engr	3 cr.
CEE 642	Advanced Reinforced Concrete Design	3 cr.
CEE 644	Structural Dynamics and Earthquake Engineering	3 cr.
CEE 650	Advanced Railway Engineering and Planning	3 cr.
CEE 680	Civil Engineering Project	3 cr.
CEE 698	Thesis Research	3 cr.
CEE 699	Thesis Research	3 cr.

**Approved Engineering Elective Courses**

EE 601	Advanced Electrical Engineering Analysis	3 cr.
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CEE 609	Engineering Cost Analysis	3 cr.
	or	
EMGT 609	Engineering Cost Analysis	3 cr.
CEE 641	Energy Management	3 cr.
	or	
EMGT 640	Energy Management	3 cr.
ME 610	Measurement Systems	3 cr.
ME 619	Experimental and Analytical Stress Analysis	3 cr.
ME 626	Applications of Advanced Fluid Mechanics	3 cr.
ME 635	Design of Alternative Energy Systems	3 cr.
ME 651	Applied Computational Fluid Dynamics	3 cr.

**Five-Year BSCE/MSCE Program**

This program allows undergraduate civil engineering majors in the College of Engineering to accelerate the completion of the bachelor's science in Civil Engineering (BSCE) degree and to earn the master's degree in Civil Engineering (MSCE) with just one additional year of study.

**Master of Science in Electrical Engineering (MSEE)****Degree Requirements****Core course requirements**

EMGT 605	Engineering Management	3 cr.
	or	
EMGT 648	Project Management	3 cr.
EE 601	Advanced Electrical Engineering Analysis	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 650	Systems Integration	3 cr.
<b>Subtotal: 12</b>		

**Non-Thesis Option—Minimum Curriculum Requirements**

5XX	EE or CPE course	6 cr. max.
6XX	EE or CPE course	12 cr. min.
<b>Subtotal: 18</b>		

**Thesis Option—Minimum Curriculum Requirements**

6XX	EE or CPE course	9 cr. min.
5XX	EE or CPE course	3 cr. max.

XXX	Thesis	6 cr.
		<b>Subtotal: 18</b>
Project Option—Minimum Curriculum Requirements		
6XX	EE or CPE course	12 cr. min.
5XX	EE or CPE course	3 cr. max.
EE 685	Electrical Engineering Project	3 cr.
		<b>Subtotal: 18</b>

\*Courses numbered at the “6xx” level are for graduate students only and are offered on an 11 week term.

Courses numbered at the “5xx” level are provided for entry level graduate students who may require a stronger foundation in a subject area before proceeding to 600 level courses. Course registration in 500 level courses must be approved by the master candidate’s advisor.

Students may tailor their curriculum to meet their career goals. Students are required to meet with their advisor to develop an academic plan of study.

### MSEE - Mechatronics Concentration

The Mechatronics concentration in EE is directed toward both full-time and part-time students with a special emphasis on providing advanced training, experience in performing independent research on topics with theoretical as well as applied interest, and managing projects. A combination of courses from Electrical Engineering, Mechanical Engineering and Engineering Management, is offered to provide the graduates with a systems perspective.

### Degree Requirements

Core Course Requirements (for a total of 24 credits)

EMGT 605	Engineering Management	3 cr.
or		
EMGT 648	Project Management	3 cr.
EMGT 607	Quality Engineering	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 650	Systems Integration	3 cr.
EE 675	Advanced Motion Controls	3 cr.
EE 676	Intelligent Motion Controls	3 cr.
ME 655	Design of Mechatronic Systems	3 cr.
ME 656	Advanced Mechatronics	3 cr.

Select two of the following EE courses (6 cr)

EE 675	Advanced Motion Controls	3 cr.
or		
EE 676	Intelligent Motion Controls	3 cr.
or		
EE 677	Advanced Continuous and Discrete Systems Analysis and Controls	3 cr.

		or
EE 678	Linear and NonLinear Systems Modeling and Simulation	3 cr.
ME 655	Design of Mechatronic Systems	3 cr.
ME 656	Advanced Mechatronics	3 cr.
		<b>Subtotal: 24</b>

### Electrical Engineering Elective Courses

EE 601	Advanced Electrical Engineering Analysis	3 cr.
EE 614	Advanced Electromagnetics	3 cr.
EE 615	Antenna Theory and Design	3 cr.
EE 616	Introduction to Numerical Electromagnetics	3 cr.
EE 621	Coherent Optics	3 cr.
EE 625	Stochastic Processes - Kalman Filters	3 cr.
EE 650	Advanced Digital Signal Processing	3 cr.
EE 667	Advanced Electrical Materials	3 cr.
EE 670	Optimal Control Systems	3 cr.
EE 685	Electrical Engineering Project	3 cr.
EE 690	Special Topics in Electrical Engineering	3 cr.
EE 698-699	Thesis Research	6 cr.

### Computer Engineering Elective Courses

CPE 620	Advanced Computer Architecture	3 cr.
CPE 625	Advanced Software Engineering	3 cr.
CPE 635	Advanced Requirements Analysis	3 cr.
CPE 645	Embedded Software Systems	3 cr.
CPE 648	Software Project Management	3 cr.
CPE 650	Software Architecture	3 cr.
CPE 652	Software Generation and Maintenance	3 cr.
CPE 655	Computer Network Architecture	3 cr.
CPE 690	Special Topics	3 cr.

### Core Requirements

The following three options are available for the remaining six credits

- All Course Option:
  - EE 601 Advanced Electrical Engineering and one EE 500/600 level course from an approved list of courses
- Project Option:
  - EE 685 Project with presentation (3 credits) and EE 601
- Thesis Option:
  - EE 698-EE 699 six credits of thesis with presentation

*Note: For students who wish to select a project/thesis topic sponsored by their employer, the topic must be approved by the student's supervisor as well as their faculty advisor.*

## Master of Science in Mechanical Engineering (MSME)

### Degree Requirements

#### Core course requirements

EMGT 605	Engineering Management	3 cr.
	or	
EMGT 648	Project Management	3 cr.
6XX	ME course	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 650	Systems Integration	3 cr.

**Subtotal: 12**

#### Non-Thesis Option—Minimum Curriculum Requirements

6XX	ME course	12 cr. min.
5XX	ME course	6 cr. max

**Subtotal: 18**

#### Thesis Option—Minimum Curriculum Requirements

6XX	ME course	9 cr. min.
5XX	ME course	3 cr. max.
XXX	Thesis	6 cr.

**Subtotal: 18**

#### Project Option—Minimum Curriculum Requirements

6XX	ME course	9 cr. min.
5XX	ME course	6 cr. max
ME 685	Mechanical Engineering Project	3 cr.

**Subtotal: 18**

\*Graduate ME courses can be selected in such a way to expand a student's technical knowledge in keeping with their interest and professional needs. Students are required to meet with their advisor to develop a plan of study.

### MSME - Mechatronics Concentration

The Mechatronics concentration in ME is directed toward both full-time and part-time students with a special emphasis on providing advanced training, experience in performing independent research on topics with theoretical as well as applied interest, and managing projects. A combination of courses from Electrical Engineering, Mechanical Engineering and Engineering Management, is offered to provide the graduates with a systems perspective.

### Degree Requirements

#### Core Course Requirements (for a total of 24 credits)

EMGT 605	Engineering Management	3 cr.
	or	
EMGT 648	Project Management	3 cr.
6XX	ME course	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 650	Systems Integration	3 cr.

#### Select two of the following EE courses (6 cr)

EE 675	Advanced Motion Controls	3 cr.
	or	
EE 676	Intelligent Motion Controls	3 cr.
	or	
EE 677	Advanced Continuous and Discrete Systems Analysis and Controls	3 cr.
	or	
EE 678	Linear and NonLinear Systems Modeling and Simulation	3 cr.
ME 655	Design of Mechatronic Systems	3 cr.
ME 656	Advanced Mechatronics	3 cr.

**Subtotal: 24**

The following three options are available for the remaining six credits

#### All Course Option:

Two ME 500/600 level courses from an approved list of courses.

#### Project Option

Project with presentation (3 credits) and one ME 500/600 level course from an approved list of courses.

#### Thesis Option

Six credits of thesis with presentation.

*Note: For students who wish to select a project/thesis topic sponsored by their employer, the topic must be approved by the student's supervisor as well as their faculty advisor.*

#### Mechanical Engineering Elective Courses

ME 610	Measurement Systems	3 cr.
ME 619	Experimental and Analytical Stress Analysis	3 cr.
ME 620	Applied Mechanical Design	3 cr.
ME 626	Applications of Advanced Fluid Mechanics	3 cr.
ME 632	Fundamentals of Flight	3 cr.
ME 635	Design of Alternative Energy Systems	3 cr.

ME 640	Materials Selection for Engineering Design and Manufacturing	3 cr.
ME 651	Applied Computational Fluid Dynamics	3 cr.
ME 654	Computer Control of Manufacturing	3 cr.
ME 656	Advanced Mechatronics	3 cr.
ME 660	Practical Aspects of Vibrations, Noise, and Acoustics Engineering	3 cr.
ME 685	Mechanical Engineering Project	3 cr.
ME 690	Special Topics in Mechanical Engineering	3 cr.
ME 698/ME 699	Thesis Research	3 cr.

### Master of Science in Engineering Management (MSEM)

Nearly half of the engineers working in industry serve in management capacities, yet many undergraduate engineering curricula do not include information on the development of management problem-solving skills. The Master of Science in Engineering Management program addresses this need by including core courses in project management; supply chain management; and logistics, quality engineering, and statistical methods for quality assurance.

#### Program Objectives

Graduates of the MSEM program will:

- be able to plan, design, and manage technological projects;
- have increased career advancement opportunities given their coursework and experience in the program; and
- be better prepared to manage and implement change within their organization.

### Degree Requirements

#### Core Courses

EMGT 607	Quality Engineering	3 cr.
EMGT 615	Statistical Quality Control	3 cr.
EMGT 619	Engineering Supply Chain	3 cr.
EMGT 648	Project Management	3 cr.
or		
EMGT 605	Engineering Management	3 cr.

In addition to the required four core courses (12 credit hours) above, students can expand their technical knowledge in keeping with their interest and professional needs by selecting any graduate level course in engineering management. A student may also select a maximum of three graduate courses from the Master of Business Administration (MBA) program.

#### Production and Manufacturing Systems courses

EMGT 609	Engineering Cost Analysis	3 cr.
EMGT 622	Lean Production Systems	3 cr.
EMGT 629	Advanced Manufacturing Engineering Systems	3 cr.
EMGT 631	Production and Inventory Modeling	3 cr.
EMGT 637	Ergonomics and Occupational Safety	3 cr.
EMGT 640	Energy Management	3 cr.
EMGT 642	Engineering Materials	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 645	Quantitative Models of Supply Chain Management	3 cr.
EMGT 647	Facility Planning	3 cr.

#### Quality Engineering courses

EMGT 602	Engineering Crisis, Disaster, and Risk Management	3 cr.
EMGT 609	Engineering Cost Analysis	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 644	Quality Systems and Process Improvement	3 cr.

#### Business and Engineering Information Systems courses

BIS 610	Information Technology Management and Applications	3 cr.
BIS 6XX	Business Information System Elective	3 cr.
CPE 6XX	Computer Engineering Elective	3 cr.
EMGT 602	Engineering Crisis, Disaster, and Risk Management	3 cr.
EMGT 611	Strategic Direction of Technology and Innovation	3 cr.
EMGT 620	Multi-Criteria Decision Analysis	3 cr.
EMGT 624	Engineering Management Information Systems	3 cr.
EMGT 626	Discrete Event Simulation	3 cr.
EMGT 635	Optimization Methods I	3 cr.
EMGT 650	Systems Integration	3 cr.

#### Electives

Engineering Management Electives—9 credit hours minimum\*

Engineering or Business Electives—9 credit hours maximum

30 credits total program

## Five-Year Bachelor/MSEM Program

This program allows undergraduate Engineering majors in the College of Engineering to accelerate the completion of the bachelor's degree and to earn the master's degree in Engineering Management (MSEM) with just one additional year of study.

## Master of Science in Industrial Engineering (MSIE)

Industrial engineers play key roles and are at the forefront of designing effective and efficient systems for quality products and services. The Master of Science in Industrial Engineering is intended for students with undergraduate engineering degrees to further advance their knowledge in areas such as analytical modeling, production planning, facilities design and scheduling.

### Program Objectives

Graduates of the MSIE program will:

- have the ability to synthesize, analyze and optimize data for enterprise decision making
- model, improve, control and re-design enterprise data and
- be prepared to apply new tools and technique to solve industrial engineering problems

## Degree Requirements

Core Courses - 9 credit hours

IE 601	Advanced Engineering Statistics	3 cr.
IE 631	Production and Inventory Modeling	3 cr.
IE 635	Optimization Methods I	3 cr.
		<b>Subtotal: 9</b>

Core Concentration - 3 credit hours

IE 626	Discrete Event Simulation	3 cr.
	or	
IE 629	Advanced Manufacturing Engineering Systems	3 cr.
	or	
IE 643	Design of Experiments	3 cr.
		<b>Subtotal: 3</b>

In addition to the required four core courses & concentration (12 credit hours) above, students can expand their technical knowledge in keeping with their interest and professional needs. Students can select from a thesis or non-thesis option. The thesis option requires 12 credit hours of electives plus 6 credit hours of thesis (IE 698 and IE 699). The non-thesis option requires 15 credit hours of electives and 3 credit hours of a research project (IE 680).

Non-Thesis Option—Minimum Curriculum Requirements

IE 680	Engineering Project	3 cr.
		<b>Subtotal: 3</b>

Thesis Option—Minimum Curriculum Requirements

IE 698	Thesis Research	3 cr.
IE 699	Thesis Research	3 cr.
		<b>Subtotal: 6</b>

Approved Electives

15 credits for non-thesis option, 12 credits for thesis option

IE 604	Human Factors	3 cr.
IE 605	Reliability	3 cr.
IE 609	Engineering Cost Analysis	3 cr.
IE 619	Engineering Supply Chain	3 cr.
IE 620	Multi-Criteria Decision Analysis	3 cr.
IE 622	Lean Production Systems	3 cr.
IE 635	Optimization Methods I	3 cr.
IE 644	Quality Systems and Process Improvement	3 cr.
IE 645	Quantitative Models of Supply Chain Management	3 cr.
		<b>Subtotal: 12-15</b>

Subtotal: 33-36

Note: For students who wish to select a project/thesis topic sponsored by their employer, the topic must be approved by the student's supervisor, as well as their faculty advisor.

## Master of Science in Engineering Management/Master of Business Administration (MSEM/MBA)

The Colleges of Business and Engineering offer a joint MSEM/MBA for those in the engineering profession who want to advance their knowledge and improve their management career opportunities in engineering and technology-oriented companies. By pursuing the combined degree program, students earn the MSEM/MBA in 54 credits, taking advantage of 12 credits that can be applied to both degrees.

Candidates for the program must have a four-year undergraduate degree in engineering or a closely related field from an accredited college or university. Those interested in this degree option should contact the Admissions Office for specific information about the program and the application process.

Total Credit Hours: 54

## Doctoral Program in Engineering Management

### General Information

The Doctor of Philosophy (Ph.D.) focuses on developing skills needed to conduct rigorous research in areas related to the improvement, design, and management of projects and programs within complex human-technological systems. These systems include engineering systems, healthcare systems, service systems, and logistical/transportation systems. Through a combination of coursework and directed research the Department of Industrial

Engineering and Engineering Management will provide a solid foundation and depth of engineering management theory and practice, provide breadth and depth across multiple types of human technological systems, and to contribute to the body and knowledge in engineering management.

### Program Goals and Objectives

The goal of this program is to prepare graduates with appropriate technical depth and breadth of knowledge so that they may be successful educators, researchers, and practitioners in the management of engineering and technology. Graduates of this program will demonstrate:

A solid foundation and depth in engineering and management theory and practice;

A breadth across multiple types of human technological systems; and

An ability to contribute to the body of knowledge in engineering management.

These objectives will be assessed via coursework in related areas, class projects, dissertation completion, and publication of research work.

### Program Structure

The following outlines the degree and curricular requirements for the program. In addition to the required coursework each student must complete a preliminary examination, a comprehensive examination, a proposal defense and finally a dissertation defense in order to obtain the degree. Students must maintain a grade point average of 3.0 on a 4.0 scale. Students may also have no more than two course grades of C or lower.

### Credit Hour Requirements

Graduate Coursework : at least 57 credit hours beyond BS; at least 30 credit hours beyond MS; 60% of the Ph.D. courses (incl. dissertation) must be at 700 or higher level and 70% of all graduate courses (incl. dissertation) must be at 600 or higher level.

Dissertation : at least 27 credit hours.

### Preliminary Examination

Before completing five terms at Western New England University, a student (fulltime) must pass the preliminary examination administered by the department. A student may attempt the examination no more than twice. The examination will be based on the subject material from EMGT 619, EMGT 635, EMGT 648, EMGT 701 and EMGT 709.

### Advisor, Advisory Committee and Plan of study

Before completing six terms at Western New England University, a student (fulltime) must select a major advisor and an advisory committee. With the assistance of the advisor, the student must prepare a plan of study that must be approved by the advisory committee and department chair before the comprehensive examination is attempted. Advisory committees will consist of at least three departmental members (one of which must be the major advisor) and at least one member from outside the department.

### Comprehensive examination

Students must pass a comprehensive examination covering the major area of study. A student may attempt this examination no more than twice. This examination will be administered by the student's advisory committee and is intended to ensure that the student is prepared for dissertation research efforts. A student may enroll in dissertation hours only after passing the core course requirements.

### Dissertation approval examination (proposal defense)

Students must prepare a written dissertation research proposal and present it orally. A student must be continuously enrolled in EMGT 770-799 (Dissertation) after the dissertation approval examination.

### Dissertation defense

Students must successfully defend their dissertation through written and oral presentation. Students must complete this milestone within eight years of initial enrollment into the program.

## Degree Requirements

### Core courses (15-21 hours)

EMGT 619	Engineering Supply Chain	3 cr.
EMGT 635	Optimization Methods I	3 cr.
EMGT 648	Project Management	3 cr.
EMGT 701	Seminar / Research Methods for Engineering Management	3 cr.
EMGT 709	Advanced Engineering Cost Estimation	3 cr.

A student who enters the program and does not have a Master of Science degree in Engineering Management, or a closely related field, will need to complete the following additional courses:

EMGT 643	Design of Experiments	3 cr.
EMGT 644	Quality Systems and Process Improvement	3 cr.

### Elective Courses

EMGT 702	Risk Assessment	3 cr.
EMGT 706	Enterprise and Complex Systems for Engineers	3 cr.
EMGT 726	Advanced Modeling and Analysis of Systems	3 cr.
EMGT 735	Optimization Methods II	3 cr.
EMGT 740	Scheduling and Sequencing	3 cr.
EMGT 765	Special Topics in Engineering Management	1-3 cr.

Students may also enroll in no more than two MBA courses to satisfy any remaining course requirements. These courses require the approval of the student's advisory committee.

### Dissertation Research (27 - 36 credit hours)

EMGT 770-799	Dissertation Research	1-3 cr.
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**Subtotal: 24-36**

## Example Program of Study

The following table provides an example schedule (student who enters program already having a MS in EMGT) with which course and program requirements may be completed.

## Degree Requirements

### Year 1 - Fall

EMGT 701	Seminar / Research Methods for Engineering Management	3 cr.
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EMGT 648	Project Management	3 cr.
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**Year 1 - Winter**

EMGT 619	Engineering Supply Chain	3 cr.
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EMGT 626	Discrete Event Simulation	3 cr.
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**Year 1 - Spring**

EMGT 702	Risk Assessment	3 cr.
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EMGT 635	Optimization Methods I	3 cr.
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**Year 1 - Summer**

EMGT 726	Advanced Modeling and Analysis of Systems	3 cr.
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EMGT 650	Systems Integration	3 cr.
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**Year 2 - Fall**

EMGT 609	Engineering Cost Analysis	3 cr.
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EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 2 - Winter**

EMGT 709	Advanced Engineering Cost Estimation	3 cr.
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EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 2 - Spring**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 2 - Summer**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 3 - Fall**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 3 - Winter**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 3 - Spring**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Year 3 - Summer**

EMGT 770-799	Dissertation Research	1-3 cr.
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**Admissions**

Candidates interested in this program need to have earned a masters or bachelors degree in engineering, or a closely related discipline. Candidates need to have demonstrated a competence in at least one structured programming language and have evidence of the completion of a course in probability and statistics. Candidates should have a minimum cumulative grade point average of a 3.5 in all graduate work or a minimum undergraduate cumulative grade point average of a 3.5. Candidates must submit their score from the Graduate Records Examination (GRE). The program accepts students who have met these requirements and demonstrate strong potential as scholars and future leaders in the field of engineering management

**Graduate Engineering Supply Chain Certificate**

Companies are continuously working towards aligning their operations with supply chain management solutions. This certificate provides the theory, principles, and implications of supply chain management relevant for today's engineering. It is intended to provide students with an understanding of the strategic and tactical elements of supply chains. In particular this certificate is aimed for the engineering who is actively engaged in supply chain management and decision making.

The certificate consists of four, 3 credit courses.

**Degree Requirements**

Engineering Supply Chain Certificate requirements:

EMGT 619	Engineering Supply Chain	3 cr.
EMGT 645	Quantitative Models of Supply Chain Management	3 cr.
EMGT 644	Quality Systems and Process Improvement	3 cr.
EMGT 626	Discrete Event Simulation	3 cr.

**Subtotal: 12**

Total Credit Hours: 12

**Graduate Green Belt Certificate**

The Green Belt Certificate Program is focused on creating a high performance organization through a mindset with continuous improvement at its core. This certificate provides the theory and principles to eliminate waste, reduce variability and continually search for productive solutions in organizations. An equal balance of quantitative and qualitative tools and practices are introduced which are commonly applied by today's successful organizations. After completing this sequence of courses, students should feel qualified to sit for their six sigma black belt examination.

The certificate consists of four, 3 credit courses.

**Degree Requirements**

Green Belt Certificate requirements:

EMGT 607	Quality Engineering	3 cr.
EMGT 615	Statistical Quality Control	3 cr.
EMGT 643	Design of Experiments	3 cr.
EMGT 644	Quality Systems and Process Improvement	3 cr.

**Subtotal: 12**

Total Credit Hours: 12

## Graduate Engineering Risk and Emergency Management Certificate

Risk assessment and emergency management for engineered systems are essential evaluation and planning tools for any organization with exposure to technical and natural hazards. Developing anticipator assessments enables the private and public entity to save time, money and the health and safety of employees or a population by identifying hazard exposures so that each can be managed relative to the risk that each represents. This graduate certificate is intended to enable the engineer and civic planner to take the lead in this management through hazard identification, qualification, quantification and scenario development. For this, the Engineering Risk and Emergency Management Certificate is earned through 4 courses that cover a range of materials ranging from principles of emergency management, environmental risk assessments and impacts statements, tools for risk assessment, decision management processes and applying a risk perspectives to fields such as costs estimating.

The certificate consists of four, 3 credit courses.

### Degree Requirements

Graduate Engineering Risk and Emergency Management Certificate requirements:

EMGT 602	Engineering Crisis, Disaster, and Risk Management	3 cr.
EMGT 620	Multi-Criteria Decision Analysis	3 cr.
EMGT 704	Engineering Risk Analysis	3 cr.
	And	
EMGT 709	Advanced Engineering Cost Estimation	3 cr.
	or	
EMGT 626	Discrete Event Simulation	3 cr.
		<b>Subtotal: 12</b>

Total Credit Hours: 12

## School of Law

Dean Eric Gouvin

Associate Dean for Academic Affairs Beth D. Cohen

For nearly a century, Western New England University School of Law has been preparing men and women to enter the legal profession. It is the only Massachusetts law school outside of the Boston area accredited by the American Bar Association. It is also a member of the Association of American Law Schools.

Though its academic programs are rigorous, the learning environment at the School of Law promotes cooperation and interaction at every level. Faculty, staff, and administration are highly accessible and supportive.

The School of Law has more than 8,000 alumni who live and practice in 49 states, several U.S. territories, Canada, and several foreign countries.

For admissions information, contact the School of Law at 413-782-1406 or 800-782-6665 or at [www.law.wne.edu](http://www.law.wne.edu).

## Juris Doctor/Master of Business Administration (JD/MBA) Degree

After completing one year of the Juris Doctorate program, students may simultaneously work on the requirements of the Juris Doctor from Western New England University School of Law and the Master of Business Administration from Western New England University College of Business. Seven of the MBA Program's 37 credits may be satisfied through law classes, while 12 of the 88 required law credits may be satisfied through business classes.

Candidates for the program must have at least a four-year undergraduate degree from an accredited college or university. Students are required to apply to both the MBA program through the College of Business and the JD program through the School of Law.

## College of Pharmacy

Dean Evan Robinson

Associate Dean for Academic Affairs Beth Welch

Assistant Dean for Student Affairs Joshua Spooner

Assistant Dean for Pharmacy Experiential Affairs Kimberly Tanzer

The Western New England University College of Pharmacy will be prominently known for excellence in the preparation of pharmacy practitioners as educators of patients and other healthcare professionals and leaders for the betterment of patient care.

The College of Pharmacy began the professional phase of the pharmacy program in fall 2011. The College of Pharmacy curriculum is designed to prepare learners to enter the practice of pharmacy as general practitioners in a variety of practice settings and deliver optimal patient care to diverse populations. The primary intention of this comprehensive educational program is to transition dependent learners into independent professional practitioners who are dedicated to serving the community in which they live. The curriculum provides learners opportunities to develop the knowledge, skills, and attitudes necessary to become licensed professionals who will provide optimal patient care in a caring, collaborative, safe, and culturally aware manner.

The curriculum entails a competency-based framework, using integrated content and teaching, problem-based approaches when appropriate, integrated technology, and experiential exposure threaded throughout. The curriculum is designed to incrementally develop strong scientific foundations (in the biomedical, pharmaceutical, social and administrative, and clinical sciences) and professional skills. During pharmacy practice experiences, learners have many opportunities to demonstrate and apply these skills in progressively advanced methods.

The Doctor of Pharmacy program was awarded Candidate accreditation status in June 2014 from the Accreditation Council for Pharmacy Education (ACPE). For the most current information on accreditation status, please visit the College of Pharmacy website [www.wne.edu/pharmacy/](http://www.wne.edu/pharmacy/).

For admissions information, contact the College of Pharmacy at 413-796-2113 or [rxadmissions@wne.edu](mailto:rxadmissions@wne.edu) or visit our website.

## STUDENT SERVICES

### Undergraduate Student Services and Information

#### Learning Beyond the Classroom

Learning Beyond the Classroom (LBC) is one of the unique features of a Western New England University education. The concept of Learning Beyond the Classroom recognizes that learning can occur anytime, anywhere and not just within the classroom setting. Through involvement as well as reflection, students are encouraged to participate in the learning process. Other schools have experiences that students participate in, but few make deliberate attempts to make sure that these experiences are educationally purposeful.

At Western New England University, we encourage students to reflect on their experiences beyond the classroom in order to integrate their cocurricular and scholarly lives. We want students to understand that their complete experience here is an educational one and that their growth will be much more than one dimensional. It is our belief and practice that experiential learning deepens students' understanding of their chosen discipline, the fields in which they will work, and the society in which they live. We seek to instill in our students a lifelong love of learning and are committed to providing every student with Learning Beyond the Classroom experiences.

The Center for Civic Engagement educates students to be socially conscious, skilled, and committed to a just, diverse, and democratic community. The Center offers a wide range of community initiatives, including Alternative Fall and Spring Breaks, Civic Engagement 101 Workshops, K- 12 Tutoring and Mentoring programs, America Reads, and Martin Luther King Jr. Days of Action. Through these initiatives, students are able to connect with their community, heighten their awareness of various social issues, discover the importance of civic responsibility, and gain skills to enhance their college experiences and future careers.

#### Residence/Campus Life

**Living Facilities.** Students may live in a variety of accommodations, ranging from traditional residence halls to room suites with semiprivate baths to apartments or townhouse units with full kitchens and baths. Residence facilities serve as an integral part of the educational program. Students proceed through various types of residential facilities as they progress through their undergraduate programs. First-year students are normally assigned to traditional residence halls. Sophomores normally reside in either traditional or suite-style living units and, as space permits, the University's apartment complex. Juniors and seniors may reside in apartments or townhouse units.

All residence facilities are furnished with twin, bunk, or loft style beds, storage space (such as closets, free standing wardrobe units, or bureaus), desks, and chairs. Apartment and townhouse units are also furnished with kitchen appliances, a dining table, and living area furnishings. Information regarding services, laundry facilities, etc. is provided online, either as a link on the University's home page, or at [www1.wne.edu/residencelife/](http://www1.wne.edu/residencelife/). Assignment is largely determined by the student's housing preferences, class level, and demonstrated academic performance. Requests for University housing are honored depending on availability of facilities and fulfillment of application, payment, and assignment deadlines.

Each area within the residency complexes is staffed with a residence director, or residence manager, and several resident advisors. The residence director is a full-time professional staff member in

residence, who oversees components of University housing throughout the campus. Residence managers are typically graduate students who reside on campus and are responsible for the management of their particular residence hall or area. Resident advisors are full-time undergraduate students working directly with a specific living group. Residence Life is supervised by the assistant dean of students, two associate directors, an assistant director with support from an administrative assistant and student office assistants.

**Dining Services.** Food services are provided in the St. Germain Campus Center. A full service board plan offers students a variety of dining options. Resident students normally take their meals in the main dining room. The Campus Center food court provides a varied menu for commuting students including a la carte dining or late night snacks. Food service is available seven days a week while classes are in session. Students residing in traditional or suite-style units are required to participate in a comprehensive meal plan. Students residing in Gateway Village apartments, Evergreen Village, Southwood Hall, and commuting students may choose to participate in a variety of alternative meal plans, and may register online for the meal plan of their choice. Whereas first year students are required to participate in the full meal plan (20 meals per week), sophomores, juniors, and/or seniors assigned to traditional or suite-style housing may switch to a reduced meal plan option (any 14 meals per week). This may be done online as well.

Students may also purchase 'declining balance points' (DB) which function like a debit card and may be used at all dining locations and the campus center convenience store. All students may purchase DB points and may do so at Student Administrative Services.

Food Service professionals are available to assist with dietary concerns such as food allergies. Detailed documentation from a physician outlining specific food restrictions and/or needs, should be provided to the Office of Student Disability Services for consideration of an accommodation or exemption status.

**Campus Center.** The St. Germain Campus Center serves as a focal point for social, cultural, and leisure activities at the University. In addition to various recreational and dining facilities, it contains offices for student clubs and organizations, the University Bookstore, and a convenience store. It also contains an art gallery featuring monthly exhibits, a television lounge, and a variety of conference and meeting rooms. A game room provides other leisure time activities.

Most of the Student Affairs administrative offices are located on the second floor, allowing students easy and convenient access. These include the offices of the Vice President of Student Affairs and Dean of Students, Student Activities and Leadership Development, Residence Life, Learning Beyond the Classroom, the Career Development Center, Counseling, Drug and Alcohol Education, Spiritual Life, and Diversity Programs and Services. The Office of First Year Students & Students in Transition is located on the first floor. The University Bookstore, also located in the Campus Center, provides a complete textbook service. The store stocks a wide variety of paperback books, magazines, educational supplies, and sundry items. Assorted gifts, t-shirts, hats, athletic wear, and other items with the University name or emblem are also available.

**Rivers Memorial Hall.** The center of the building contains a carpeted area used for large programs and banquets. The perimeter includes space for the music program; the drama program; an arts and crafts area; and the student media including the newspaper, literature magazine, and the yearbook. The cultural center; gay, lesbian, bisexual and transgender resource room; and the campus radio station, as well as additional conference and meeting rooms are also available here.

## Student Assistance

**Student Administrative Services.** The Office of Student Administrative Services (SAS) combines the functions of billing and collections, financial aid, and records and registration. Student Administrative Services is designed to conveniently serve all clients of the University in one location by a team of student services administrators and specialists. Located on the ground floor of the D'Amour Library, the entrance to Student Administrative Services is on the south side of the building. The telephone number is 413-796-2080, and the fax number is 413-796-2081.

**Student Disability Services.** The Student Disability Services (SDS) office is designed to provide support for any student with a documented disability who requests accommodation. To register with the office students requesting these services must identify themselves and offer documentation substantiating a disability. Disabilities protected under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act include, but are not limited to, students with learning disabilities, perceptual disabilities, deaf or hearing impairments, blind or visual impairments, speech disorders, orthopedic impairments, and other health impairments. This disclosure and registration at the office is voluntary. However, registration in the office in a timely fashion is necessary to secure specific accommodations. All information, reports, and discussions are held in confidence, unless sharing necessary and relevant information is deemed appropriate. The coordinator, assistant director, and assistant dean of the Student Disability Services office work with the students and faculty to ensure that necessary services and accommodations are provided in a timely and efficient manner.

Specific requests for accommodations are reviewed and recommendations are made on a case-by-case basis. If students wish, they may arrange for individual appointments weekly or twice each month to review their courses, assignments, and accommodations, and, if needed, to review study skills, time management, and general organizational problems or concerns. The Student Disability Services Office is available to address related issues on disabilities as well as act as a referral source to other personnel on campus. Students are encouraged to visit the office early in the semester to access needed services and acquaint professors of their academic needs in a timely manner to receive full benefits of the services. The provost/vice president for Academic Affairs serves as the Section 504 officer on campus and is responsible for ensuring that Section 504 regulations are fulfilled in a reasonable and timely manner.

- **Permanent and Temporary Mobility Issues.** It is critical that, in the case of either a permanent or temporary mobility impairment, the office of Student Disability Services (SDS) is notified immediately, so that classes can be moved to more accessible locations, and/or elevator keys can be provided as needed.
- Students with temporary conditions (e.g. broken leg, sprained ankle, emergency surgery) may obtain permission to park in more accessible spaces if they request this from Student Disability Services and provide a letter of verification from a doctor.

For more information visit our website at [www.wne.edu/sds](http://www.wne.edu/sds)

**Counseling Services.** Caring, licensed professionals provide confidential help to students with personal, social, and educational concerns. Common areas of concerns include adjustment to college, anxiety, depression, relationships and sexual orientation, eating disorders, substance abuse, sexual/physical abuse, and test anxiety. Services include individual, couple, and family counseling, as well as crisis intervention. We can provide a list of off campus therapists when requested.

Check out our website where you can take a self-help screening for depression, anxiety, substance abuse, eating disorders, PTSD, or bipolar disorder. You will also find more information about our staff, commonly asked questions, the Sexual Misconduct Advocate Response Team (SMART), and our Alcohol and Drug Education Services.

To make an appointment you may come to the Counseling Center in person or call 782-1221 during office hours, Monday through Friday, 8:30 a.m. to 4:30 p.m. We are located in the St. Germain Campus Center, Room 249.

**The Career Development Center.** The Career Development Center, [www.wne.edu/career/](http://www.wne.edu/career/) located on the second floor of the St. Germain Campus Center, offers a variety of career related programs, workshops, and seminars including classroom presentations in collaboration with the faculty to educate students on career development and strategy. The career staff implements the University's strong commitment to the development of the student's career decision-making by providing individual career advising and assistance in identifying career options, major and occupational exploration, and job search strategies to include conducting mock interviews, graduate school decision-making and internship placement. The Career Development Center, under the direction of the Division of Student Affairs, also collaborates with the Office of First Year Students & Students in Transition, the Office of Alumni Relations, and with student organizations to facilitate these activities.

The Career Development Center is dedicated to providing effective career planning and advising and has an exceptional staff of professional counselors to assist students in their career decision-making processes. Individualized career counseling and advising is available to all students by a career counselor assigned to the College of Arts and Sciences, the College of Business, and the College of Engineering. Students who have not officially declared majors are encouraged to utilize the services of our counselors who, through a variety of assessment inventories and exploration tools, will assist students in declaring a major.

Four different career planning guidelines are offered by the Career Development Center to students at each level of their college education, with the emphasis shifting from academic to professional. All students are advised to begin career planning by knowing themselves, exploring options, and building and expanding their skill bases. Academically, students are urged to explore interests through a variety of courses, identify potential majors that relate to their interests and abilities, and focus on academic success, time management, and study skills.

The University's internship program is coordinated by the career staff. This program adds value to a student's education by providing the opportunity to bring life to the theories and concepts learned in the class-room and apply them in local businesses, industries, and organizations. The benefits of the internship experience include a confirmation of the student's choice of career path, related job experience, networking opportunities, and greater time and stress management skills. Students also gain experience working as a team member in an environment with needs and problems that have real constraints and consequences.

All students are strongly encouraged to register with the CareerCenter Online at [www1.wne.edu/career](http://www1.wne.edu/career) a robust interactive career service management system. Once registered students can create profiles, manage calendars, make appointments with their career counselors, register with the Career Center Partners, upload résumés and other job search documents and look for internships and jobs including Federal Work Study, Institutional, summer, part-time, and full-time. Access to the CareerCenter Online continues after graduation as alumni of the University.

Other resources including web-based career guidance programs such as DoWhatYouAre and FOCUS II, job boards, and Internet sites relating to a wide variety of options provide students with the knowledge to make informed career decisions. The University's network of alumni can connect students with alumni actively employed in their fields and eager to share occupational information.

The career staff brings students in contact with employers through dynamic on-campus recruiting, employer information sessions, and career fairs. In addition, students are assisted with resources for part-time and summer employment. Students are directed to employment opportunities, internships, recruiting schedules, and workshops via social media, campus resources, and personalized emails and connections. The Career Development Center's effective combination of educational career programs and job search services is a valuable complement to a student's academic experience.

### **Student Employment**

Western New England University's Student Employment program can help students meet their educational and personal expenses. More than 50% of our undergraduates work on-campus in a variety of positions. Through student employment students have the opportunity to contribute to the Western New England community while learning and practicing skills for future positions and internships.

There are two types of On-campus Student Employment opportunities:

#### ***Student Employment–Federal Work Study***

The Federal Work Study Program provides funds for jobs for undergraduate students with financial need. The program encourages community service work and work related to the student's course of study. Federal Work Study Program is need-based and requires a completed financial aid application on file with the University. Wages for Federal Work Study positions are subsidized by the federal government. Most Federal Work Study positions are on campus however, there are some off campus opportunities with America Reads.

#### ***Student Employment–Institutional***

For students not receiving a Federal Work Study award, some University offices have institutional positions available. Wages for institutional jobs are fully paid for by the University. These are on-campus positions only.

Note: On-campus private vendors such as ARAMARK and Follett hire independently and not through this program.

#### ***Getting a Job***

Open positions are posted on the Western New England University Human Resources web page and students are encouraged to search for and apply for jobs electronically. The first step is to register for work online at [www.myinterfase.com/wne/student/](http://www.myinterfase.com/wne/student/). Once the student's Myinterfase registration information has been approved by Human Resources, their account will be activated and they can then log into Myinterfase and update their profile, upload a résumé, and apply for jobs. Once they have applied for a position, students should *actively* follow up with potential employers to inquire about the status of their application. The office of Human Resources, located in Rivers Memorial Building, administers the On-campus Student Employment program and is available to assist students in their job search should they need their expertise, please contact Myra Quick, Assistant Director of Human Resources, at [myra.quick@wne.edu](mailto:myra.quick@wne.edu) or at 413-782-1529.

### ***Student Employment Job Fair***

The Student Employment Job Fair is held annually during the first two weeks of the fall semester. Representatives from a variety of University offices and departments attend to recruit student employees. Students will have an opportunity to speak with potential supervisors about specific job responsibilities.

### **Health Services**

Health Services is a comprehensive health care facility located in the Center for Sciences and Pharmacy, suite 235.

The department is directed by a full-time certified family nurse practitioner and staffed with nurse practitioners, physician assistants, physician, clinical nurse specialist for mental health as well as a medical assistant/office manager. Health care is available Monday through Friday from 8:30am to 4:00pm.

During the academic year when Health Services is not available, students may use the on-call service for after-hour's consultation with one of the providers. For life threatening emergency Campus Police should be called.

Prior to the start of classes all full-time students are required to have on file with Health Services a medical history and a recent physical examination. A completed immunization record is mandatory including evidence of immunizations against measles, varicella, mumps, rubella, tetanus and diphtheria, hepatitis B series and meningitis vaccine. Immunizations may be evidenced by documentation or titer values. Attendance for classes is contingent upon the above requirements and this requirement is required once in the enrollment of the student.

Treatment rendered by Health Services is usually without charge with a few exceptions. Students are responsible for financial obligations incurred for medical services these include laboratory fees, radiology charges, prescription medications and visits to off campus health care providers.

The Commonwealth of Massachusetts requires that undergraduates taking 9 credits or greater, or graduate students taking 7 credits or greater must either purchase insurance through the University or complete a waiver form on-line with pertinent information about their private insurer. This process is repeated every year of enrollment.

### **Cocurricular Activities**

Cocurricular activities are an integral part of student life at Western New England University. Such activities complement the more formal academic program inside the classroom. Significant emphasis is also placed on development of leadership skills. A regular series of leadership training programs is sponsored by the Student Activities and Leadership Development Office. Student Activities and Leadership Development also informs students about the myriad programs and activities which are offered on weekends of the academic year.

### **Multicultural Interests**

In support of the educational value attained through representation of various cultural backgrounds, the University recognizes the particular concerns of under-represented and international students. The University values and supports diversity and inclusion and recognizes that students work and live in a pluralistic society. In order to expose students to an increasingly complex world and to encourage respect for other cultures and people, a variety of programs are offered. Examples of current or past programs include a series on women's history, the celebration of black history, Latino history, world festival, and visiting artists of rich and culturally diverse heritages.

## Spiritual Life

Spiritual Life values the spiritual growth of its students as a vital part of their development. The clergy, interfaith student council and advisors create an atmosphere of dialogue and discussion which allows each to embrace a personal truth and to respect the truths of others, welcoming them to an atmosphere of dialogue and discussion that allows each to embrace a personal truth and to respect the truths of others.

The Holy Days and Holidays are central in our planning process as we honor our traditions and offer opportunities to share them with others.

We welcome all students to participate in this safe and vibrant community, as we celebrate our Western New England University family in the spirit of understanding.

Spiritual Life offers a safe place and open heart to individuals of all faiths, beliefs, thoughts and identities.

<http://www1.wne.edu/spiritualife>

## First and Second Year Program

### Mission Statement

The Office of First Year Students & Students in Transition pays particular attention to creating a network of support persons whose intention involves proactive interaction with students in transition. Whether entering college as a first year or transfer student or moving on to the second year of study at the University, the Office of First Year Students & Students in Transition seeks to support students in laying the foundation for success as well as in further defining a sense of purpose and direction in order to maximize the university experience. As an agent of change, the Office of First Year Students & Students in Transition functions in a culture of collaboration with each of the undergraduate schools and academic departments, student affairs staff, faculty, student leadership, and alumni. It espouses a student centered approach to program delivery. Students are always to be treated as the reason for any initiative.

Through intentional construction of a personal support network and sponsorship of educationally purposeful initiatives, the Office of First Year Students and Students in Transition prompts students to embrace intellectual change, acquire a sense of place, engage social connections, and develop educational purpose. As students move into the second year, support exists to encourage students to define a sense of purpose and direction, challenging students to recognize valued learning in and out of the classroom, discarding any notion of mediocrity in performance, so that full academic and personal potential can be obtained.

The Office of First Year Students & Students in Transition values individuality and diversity. It acknowledges that students enter college at varying developmental stages and with unique needs. We are committed to fostering highly personal and innovative delivery system in order to prompt students to identify a vision of their future, acquire the confidence to pursue that vision, set realistic goals, maintain motivation, and build academic and personal resiliency. We seek to move students from dependent to interdependent relationships. We emphasize interaction with faculty early in the student experience and characterize peers as highly influential.

### Goal of the First and Second Year Program

The formula for success in the first phase of college appears simple: make friends, embrace the academic demands of college work, participate in activities, and seek out people who can help in times of need. The difference between a successful beginning and one which is less successful than anticipated can be related to something as

simple as knowing when to get help or finding someone who will listen at times of distress. The program clarifies the simple tasks and attempts to make simple the more difficult tasks of college adjustment. The program challenges students to work to personal potential and to discard any notion of mediocrity.

### Program Objectives

The First and Second Year program offers help in the following ways:

- Making students aware of services and resources
- Identifying and reforming a network of educational and emotional support
- Encouraging specific goals for academic, physical, and personal accomplishments
- Prompting involvement and participation in campus life
- Assisting in development of an educational plan and scheduling of classes
- Monitoring and encouraging academic progress and engagement
- Fostering awareness of the value of a college education
- Increasing student awareness of the responsibility of citizenship
- Building student confidence
- Clarifying career alternatives

### Programs and Services

Programs are always changing to remain current with student needs. In its present form, the First and Second Year program is focused on several elements which are believed to have educational value and purpose and which foster student success. Equally crucial is student participation. One of the most important variables in success is a student's willingness to take advantage of the support system. Without participation, program or advisor interaction is of little value. The following programs are designed to promote a successful adjustment to college life:

#### 1. Summer Orientation and Registration (SOAR)

Students and parents take part in a two-day, overnight program on selected dates through the summer months. The SOAR program is guided by principles of academic anticipation. During SOAR, parents and students reside on campus. Separate but complementary programs are held for students and parents. Student and parent needs are addressed through the first class meeting of First Year Seminar, academic information sessions, adjustment workshops, conversations with faculty, completion of course registration for the fall semester, initiation of a preliminary educational plan, completion of residency assignment information, and introduction to college life. An alternative orientation program is available for transfer students. Typically 94 percent of first year students choose to participate.

#### 2. Bear Tracks Program

Bear Tracks is an innovative pre-orientation program for first year students. It is intended to assist students in constructing a network of support that promotes self confidence to assist students in building identity in the Western New England University community while promoting confidence in the academic adventure. Students can choose from an Outdoor Adventure Track or an Urban Plunge Track. Each "track" features a three day, two night experience. The Outdoor Adventure Track allows students to participate with their peers in a

series of team building and self-exploration activities in the great outdoors while the Urban Plunge Track affords students the opportunity to engage in service projects that will impact residents of the Springfield community.

### 3. Transitions Program

Moving from an environment that has been relatively predictable and consistent to one that is as of yet undefined requires both realistic expectations and development of a network of support. The Transitions Program has been developed with these goals in mind. The programs encompass both multiple social opportunities for students who make up the learning community to associate and traditional events such as Fall Convocation, an academic assembly focusing on the purpose of higher education. Most importantly, the Transitions Program also introduces students to the network of persons who stand to serve in a mentoring capacity.

### 4. First Year Seminar

All first semester first year students and transfer students with 27 or less completed college credits (AP or high school to college credit is not counted in the credit limits) are required to successfully complete a graded, credit bearing course focusing on critical thinking, discovery and confirmation of academic interests, oral presentation strategies, promotion of educational values, information literacy, and personal development. Many sections of the seminar also feature content relevant to a particular academic discipline. The seminar is taught by regular teaching faculty who also serve as students' academic advisors for the first two years of enrollment or until such time as a major is confirmed. Students may opt to request reassignment of the faculty advisor should the need arise. First Year Seminar is uniquely structured by each designated College. Credit values vary. Upper-class student assistance further distinguishes the course in the context of modeling and fostering academic integration.

### 5. Summer Reading Assignment

All freshman students are assigned a selected reading for summer study in an effort to heighten awareness of college academic work and challenge students in critical thinking. Students are expected to begin the academic year fully prepared to discuss the summer reading assignment and to have completed the companion writing assignment. Reading and writing assignments are often linked to regular classes in English and First Year Seminar.

### 6. College Success Coaching

The College Success Coaching Experience (CSCE) is a semester-long series of interactive academic success skills presentations and one-on-one coaching sessions. During CSCE sessions, students will discover their strengths, learn how to apply those in the collegiate classroom, and build academic confidence through the learning and application of academic success skills. The CSCE class focuses on skills that are used in all content areas, including time management, organization, communication, study skills, and test-taking skills. Students learn how to and are given guidance in applying those skills to their first semester classes. Class sections have a 1:20 Academic Success Coach to student ratio. The Academic Success Coach will conduct the class and mentor students during individual coaching sessions.

### 7. Academic Progress Monitoring

There are two key indicators that serve to foster or inhibit academic success: class attendance and completion of out-of-class assignments. Both indicators are monitored through the first year. Regardless of any class attendance policy, it is well documented that students who regularly attend all class meetings succeed; those who choose to skip class do not succeed. When excessive absence patterns are noted, students are typically advised of the potential impact on progress.

At completion of the sixth week of classes, and at the end of the eighth week grades are calculated based on assignments completed to date. In progress grades are distributed to first year students through the assigned advisor. Second year students access grades online. Instructors are also encouraged to both express congratulations to those who have met notable success and concern for those who may be struggling. Specific suggestions for improvement and/or reasons for congratulations are then shared with student advisors.

At the end of each semester, student academic performance is formally reviewed to ensure reasonable progress. If students are below minimum standards, a formally structured academic success contract is required. Through the Academic Support Center, academic progress monitoring is put in place through a series of meetings during which continuous assessment of progress is made.

### 8. Tutoring and Supplemental Instruction (SI)

It is quite normal for students to encounter subject matter which proves challenging. To support instruction, peer tutors are employed to assist students over the rough spots in mastering content and developing study strategies which match the type of course. Tutoring is typically offered on a short-term basis in many 100 and 200 level courses. Additionally, academic support is offered in certain high-risk courses through a program known as supplemental instruction. SI features organized study sessions coached through upper-class students who have previously taken the course.

### 9. Life Skills Study Mentoring

The Life Skills Study Mentoring program is a unique collaboration between the Athletic Department and the Academic Support Center. It is based on the NCAA/CHAMPS Life Skills Program and strives to support student development and enhance the quality of the student-athlete experience. Life Skills Study Mentors monitor team sponsored study halls and conduct life skills workshops on goal setting, time management, effective study skills, and other topics that will assist student-athletes in balancing their role on a collegiate varsity athletic team and in achieving academic success.

### 10. Freshman Focus Program

The freshman focus program serves as an umbrella under which students can access particular opportunities for personal growth. Programs include the Student Activities Expo designed to acquaint students with clubs and organizations, thereby seeking to connect students to the life of the campus. Freshman focus programs also include workshops geared to students who aspire to leadership as "emerging leaders." Students may also elect to take part in Freshman Council, an assembly of freshman students committed to building cohesiveness and respect for every first year student. Yet another dimension of the freshman focus program includes the development of student centered community expectations, a set of guiding principles governing student living and interaction. Finally, the freshman focus program provides the structure for formation of a personal development lecture series revolving around themes of life management and social consciousness.

## 11. Celebrating Student Success

Student achievement is valued at Western New England University. Students can expect to hear from the dean of First Year Students and Students in Transition or Academic Support Center not only when there is concern, but also when academic and personal goals have been met. Recognition is likewise noted through the freshman honor society, Alpha Lambda Delta. Eligibility is determined by grade point average at the end of the first semester of full time enrollment or cumulatively at the end of the first year. Second year students are also eligible for election to the sophomore honor society.

## 12. Alumni Mentoring Initiative

During the first year, students often find that there is lingering lack of clarity over academic and career direction. Formed as an extended part of the First Year program, volunteer alumni from the College of Engineering have been recruited and coached to offer mentoring partnerships which extend the range of the web of support characteristic of the First Year program. Students are assigned an alumni mentor through the first year engineering seminar. Mentors and protégés are brought together in a collaborative program with the Office of Alumni Relations and the College of Engineering. Students are encouraged to take advantage of the mentoring relationship through a series of relationship “prompts,” activities designed around a career development theme through which alumni can provide perspective and advice.

## 13 Sophomore Career Connections Program

The Office of Alumni Relations, the Career Development Center, the Office of First Year Students and Students in Transitions and the College of Business have developed an exploratory program for our University sophomores. This program links an alumnus(na) or professional who is located in the Greater Springfield area that works in a field of interest to the student. The student can earn *Learning Beyond the Classroom* (LBC) credit for participating in this program.

## Support in the First Year Transition

An alumnus of Western New England University described the First Year program as a web of support. The alumnus was describing the many options students have to identify a personal resource and mentor. A critical piece to solving the adjustment puzzle is to identify at least one person in an advising capacity who is accessible and interested in student success. In the First Year program, such identification is made easier by searching among a carefully constructed support network: While the second year requires more overt and intentional outreach, mentoring is no less important.

### 1. Academic Advisor

Each student is assigned to a member of the faculty or professional staff to assist in the development of educational and career plans. Normally, the first year advisor is linked to the first year seminar instructor. Sophomores are typically linked to advisors based on academic discipline. Academic advisors are the principle resource regarding information on academic requirements and should be consulted prior to completion of course registration, and to review in-progress grades.

### 2. Peer Advisor/Transfer Student Mentor

Each first year student is assigned to an upper-class student who is trained to serve as a source of information, point of first contact, and conduit to program and services. Most notably, peer advisors coach each student in the formation of the personal success plan and act as an advocate for student success. Transfer students are brought

together through the efforts of yet another cadre of upper-class students who work to integrate and support those unique transitional needs.

### 3. Faculty

Among the notable changes students encounter in college is the shift to assuming personal responsibility for learning. Faculty teaching in the first year and beyond are committed to student success and particularly respond to students who demonstrate a desire to learn. Students are encouraged to take advantage of faculty interest. Faculty further demonstrate their commitment to the quality of instruction in the first year through the existence of a faculty committee dedicated to the first year academic program and promotion of structured learning environments with high feedback.

### 4. First Year Seminar Assistant

Assigned to each section of the First Year Seminar, upper-class students work with seminar instructors to mentor students in the development of academic skills and attitudes.

### 5. Resident Advisor

Students of sophomore, junior, or senior standing are employed by the Residence Life Office to assist in the day-to-day management of the residence areas, and the development of group living-learning environments conducive to academic achievement and personal growth.

### 6. Supplemental Instruction Leader

Within the context of academic programs, there are historically high-risk courses. In a number of such courses, upper class students serve to model and foster effective strategies for becoming a student of the discipline.

For further information about the First Year program, visit [www1.wne.edu/firstyear/](http://www1.wne.edu/firstyear/), or to solicit advice and counsel regarding educational or personal goals, students and parents are encouraged to contact the dean of First Year Students & Students in Transition.

## Student Government

### Student Senate

The Student Senate is the official voice of full-time students and is comprised of representatives from each class, representatives from each of the Colleges of Arts and Sciences, Business, and Engineering, commuter and resident representatives. Elections for most offices are held in the spring of each year. Fall elections are held for freshman representatives. The Student Senate serves as a liaison between students, faculty, and the administration of the University. In addition, the Senate appoints representatives to sit on joint committees of the University Senate in order to encourage cooperation and to foster joint decision making. The Senate has as one of its major responsibilities the budgeting and administering of student activity fees in ways that will most benefit the University community, mostly through funding the 60+ clubs and organizations, class councils and major events such as Midnight Madness and Spring Event.

### Campus Activities Board (CAB)

The Campus Activities Board is a standing committee of the Student Senate responsible for comedy programs, films, concerts, performing arts, recreation, and special traditional events. It is through this student organization that the majority of student programming originates. Particular emphasis is given to providing a full spectrum of programs encompassing both weekday and weekend schedules. Membership is open to any full-time student.

## Residence Hall Association (RHA)

The Residence Hall Association provides a forum for self-governance and program development in the residence areas. Organized by elected student representatives from each of the residence areas, RHA provides coordination of hall councils that provide social, recreational, and educational programs. It also provides feedback to the University for improvement in the design and operation of the various residence areas. RHA is also a member of the North East Affiliate of College and University Residence Halls.

## Student Organizations

### Clubs

A variety of student organizations representing special interests, and often fostered by specific academic departments, offer students the opportunity to expand the range of participation in cocurricular endeavors and to enhance the academic experience. Examples of recognized student groups affiliated with academic departments include the Accounting Association, Forensic Sciences Club, Global Sustainability Club, Engineering World Health, Management Association, Sport Management Association, Criminal Justice Club. Particular student interests can also be pursued through such groups as the Cheerleading Club, Outing Club, Dance Team, Improv Comedy Troupe and Class Councils.

United and Mutually Equal (U&ME), International Club and the Gay/Straight Alliance are organizations serving the needs of an increasingly diverse student body. The goal of these organizations is to promote understanding, appreciation, and enthusiasm for diversity throughout the campus while providing a familiar and supportive community for international students and students of color.

### The Arts

The University also offers students a range of activities in which to creatively express themselves. The Arts program has expanded its scope in the classroom to include additional practicum courses in vocal performance and theater history. The performance groups include Campus Chorus, Golden Bear Bands, and Stageless Players Drama Club. Local artists are asked to host Gallery talks as well as to display their medium in the Campus Center Art Gallery on a monthly basis. Students are also able to attend local and regional theater and music attractions. Students may visit the Springfield Quadrangle Art and Science Museums free of charge throughout the year.

The student musical groups perform at a variety of University and community events. The Golden Bear Band performs at home football and basketball games along with the Dance Team. The Chorus and Band host a showcase each semester. A Student Art show is often featured in the spring in the Campus Center Art Gallery. A Fine Arts minor is now offered through the College of Arts and Sciences, [www.wne.edu/arts](http://www.wne.edu/arts)

## Publications and Communications

*The Cupola* is the University yearbook. It is designed and edited by students. The editor and staff of *The Cupola* invite interested students to participate in its development and publication. *The Review of Art and Literature* is the University's student literary magazine. The purpose of *The Review of Art and Literature* is to celebrate creative student work in photography, literature, and prose.

The student radio station, WNEK, the voice is a fully web streaming station. Programming consists of news, music, public affairs, and sports. The station, located in Rivers Memorial Hall, is staffed and operated by students. The undergraduate student newspaper, *The Westerner*, is published twice each month. Interested students are encouraged to contribute articles and serve as staff members. All

print media has placed either first or second in the American Scholastic Press Association competitions for two consecutive years. The *Student Handbook* contains information, procedures, and regulations governing student conduct, disciplinary procedures, programs, activities, and services. The *Student Handbook* is distributed each fall to all students. All students are held responsible for knowing its content and observing its behavioral guidelines and expectations.

*Golden Bear TV* is a student organization funded by Student Senate. GB-TV hosts talk shows; covers University events and athletics; and provides students with hands-on experience in broadcasting, filming, editing and on-air experience.

## Professional Societies

**American Marketing Association (AMA).** Western New England University is home to one of the 400 collegiate chapters of the American Marketing Association. The mission of the Collegiate Chapters Division of the AMA is to be the world's leading professional student organization by furthering the professional development of students through leadership, training, and involvement in the field of marketing.

**American Society of Mechanical Engineers (ASME).** The Western New England University student section of The American Society of Mechanical Engineers was established for the purpose of advancement and dissemination of knowledge of the theory and practice of mechanical engineering, the presentation of a proper perspective of engineering work, and the opportunity to become acquainted with the personnel and activities of the Society, as well as the promotion of professional awareness and fellowship.

**Association for Computing Machinery (ACM).** Organized as a student chapter, the Association for Computing Machinery seeks to promote a working knowledge of computer science. Design, construction, and language of modern computing machinery are within the interests of the club. Additional goals of the chapter are to promote professionalism and ethical use of computing and information resources. Affiliate membership is offered to any student and full membership is likewise available, provided the student is also a member of the national organization.

**Biomedical Engineering Society (BMES).** The Biomedical Engineering Society is a national organization of biomedical engineers. The mission of the student branch of the BMES at Western New England University is to provide students the opportunity to learn about the field of biomedical engineering. Through participation in the chapter, students are exposed to the many diverse aspects of the field as well as opportunities for education and employment after graduation. The chapter accomplishes this mission through invited guest speakers, plant and clinic tours, a trip to the Annual Meeting of the BMES, and a trip to the Annual Northeast Bioengineering Conference. Additionally, students are encouraged to submit papers into regional and national competitions sponsored by the BMES. Beyond these experiences, the chapter offers students opportunities for community involvement and social activity.

**Institute of Electrical and Electronic Engineers (IEEE).** The Institute of Electrical and Electronic Engineers is the world's largest professional engineering society. The Western New England University student branch provides the electrical engineering student with a means of establishing a sense of professional awareness and identity. It has proven itself to be valuable in helping students make important career decisions. It also provides students with a medium for entering student paper competitions at local, regional, and national levels. A strong tie exists between the local professional chapter and the student branch at the University.

**Institute of Industrial Engineers (IIE).** The objective of the Western New England University student chapter of the Institute of Industrial Engineers is to promote the profession of industrial engineering through affiliation with the national organization. Activities include discussion of professional opportunities; field trips to employment sites; research; and becoming acquainted with the ideals, purposes, and lifestyle typical of those in the profession. The student chapter brings the classroom experience to life.

**Society of Women Engineers (SWE).** The student chapter of the Society of Women Engineers was established to serve as a support group and provide career guidance to women engineering students. The student chapter of SWE sponsors panel discussions and lectures given by women engineers focusing on the special needs and problems of women engineers in industry. The students also attend seminars, mini-conferences, and meetings of the National Society of Women Engineers Hartford Section and Boston Section. The SWE chapter has also established a mentorship program with women engineers in local industry.

**Student Chapter of the Northeastern Section of the Mathematical Association of America.** The student chapter of the Northeastern Section of the Mathematical Association of America provides a forum for students to discuss and plan careers in mathematics and the mathematical sciences; to present student papers at the local, regional, and national levels; and to participate in a national problem-solving contest. Moreover, students are encouraged to attend mathematics conferences, subscribe to journals through the MAA, and to participate in many of the activities during Math Awareness Week each year. The chapter is established to expose students to many areas in mathematics and to all the career options open to mathematicians. Membership is available to any student who is a member of the national organization.

#### Honor Societies

**Alpha Kappa Delta.** Alpha Kappa Delta is the national honor society in sociology and a member of the Association of College Honor Societies. The Theta Chapter of Massachusetts was chartered at Western New England University in 1975. Students are nominated for membership through their faculty advisor on the basis of academic excellence and serious commitment to, and interest in, the study of society for the purpose of service to mankind. To be nominated, a student must have a 2.7 cumulative average and a 3.0 average in at least 12 credit hours of sociology and social science course.

**Alpha Lambda Delta.** Alpha Lambda Delta is a national honor society that recognizes academic excellence during a student's first year in college. The purpose of this honor society is to encourage superior academic achievement among freshmen and to promote leadership early in the students' collegiate experience. Membership is open to all freshmen who earn a cumulative average of at least 3.5 either in their first semester of enrollment or in their first year of enrollment prior to initiation. No incompletes or failures can be on the record. To be eligible, students must be enrolled full-time in a degree program.

**Alpha Mu Alpha.** Alpha Mu Alpha is the national marketing honorary society for qualified undergraduate, graduate and doctoral marketing students, and marketing faculty. Under the auspices of the AMA, a selected advisory committee of marketing educators designed the recognition program to acknowledge outstanding scholastic achievement on a highly competitive basis. Honor recipients must be senior undergraduate students with a minimum overall GPA of 3.25, members of the Western New England University Marketing Association, and members of our Collegiate Chapter of the American Marketing Association.

**Alpha Phi Sigma.** Alpha Phi Sigma is the only Criminal Justice Honor Society for Criminal Justice Majors. Alpha Phi Sigma recognizes academic excellence; Students must maintain a minimum of 3.2 overall GPA and 3.2 GPA in criminal justice courses. The student must also rank in the top 35% of their classes and have completed a minimum of four courses within the criminal justice curriculum. The Honor Society is open to those with a declared criminal justice major or minor.

**Beta Alpha Psi.** Beta Alpha Psi is an honorary organization for Financial Information students and professionals. The primary objective of Beta Alpha Psi is to encourage and give recognition to scholastic and professional excellence in the business information field. This includes promoting the study and practice of accounting, finance, and information systems; providing opportunities for self-development, service, and association among members and practicing professionals; and encouraging a sense of ethical, social, and public responsibility. Our Mu Epsilon Chapter of Beta Alpha Psi was installed in January 2009.

**Beta Gamma Sigma.** Beta Gamma Sigma is a national honor society for business majors at schools accredited by AACSB International, the Association to Advance Collegiate Schools of Business. Students are selected from the top 7% of juniors, top 10% of seniors and top 20% of graduate students. Candidates must have completed at least one half of the work required for their degree, and have completed two terms' work at Western New England University.

**Lambda Pi Eta.** Lambda Pi Eta is the official communication studies honor society of the National Communication Association (NCA). As an accredited member of the Association of College Honor Societies (ACHS), Lambda Pi Eta has nearly 400 active chapters at colleges and universities worldwide. The goals of Lambda Pi Eta are to recognize, foster, and reward outstanding scholastic achievement; stimulate interest in the field of communication; promote and encourage professional development among communication majors; provide an opportunity to discuss and exchange ideas about the field; establish and maintain close relationships and understanding between faculty and students; and explore options for further graduate studies.

**Mortar Board.** The Mortar Board is the senior honor society at Western New England University. The society is open to those students who have demonstrated both academic excellence and leadership both on campus and in the community. Students in the top 35% of the Junior Class will be considered eligible for the Society with the membership being selected by the existing members of the previous year. The Mortar Board Society hopes to recognize student achievement, while also serving as a focal point of planning and collaboration for senior leaders.

**Omicron Delta Kappa.** Omicron Delta Kappa, the National Leadership Honor Society, was founded in 1914 at Washington & Lee University in Lexington, VA. The founders formulated the idea that leadership of exceptional quality and versatility in college should be recognized; that representatives in all phases of college life should cooperate in worthwhile endeavors; and that outstanding students, faculty, and administrators should meet on a basis of mutual interest, understanding, and helpfulness. ODKAE was the first college honor society of a national scope to extend recognition beyond the formal classroom and give recognition and honor for meritorious leadership and service in extracurricular activities and to encourage development of general campus citizenship. Chapters, which are called Circles, are located on over 300 campuses throughout the nation. The Circle of ODKAE at Western New England University

recognizes achievement in the following five areas:

- Scholarship
- Athletics
- Campus/Community Service, Social/ Religious Activities, and Campus Government
- Journalism, Speech, and the Mass Media
- Creative and Performing Arts

Nominations are taken each fall and spring from all segments of the campus community.

**Phi Alpha Theta.** Phi Alpha Theta is the national honor society in history. Its mission is to promote the study of history through the exchange of ideas and the encouragement of research, teaching, and publication. To be considered for membership, a student must have completed at least 12 hours in history (four courses), have a GPA of at least 3.1 in history, have a GPA of at least 3.0 overall, and be in the top 35 percent of the entire class. Membership is not limited to history majors.

**Pi Sigma Alpha.** Pi Sigma Alpha is the national political science honor society. Students majoring in political science, public administration, and international relations who attain high standards of scholarship and academic distinction in political science and in their overall academic programs are invited to membership. Membership is conferred on the basis of academic merit alone.

**Psi Chi.** Psi Chi is the national honor society in psychology, an affiliate of the American Psychological Association, and a member of the Association of College Honor Societies. Organized in five regional divisions with more than 300 active chapters, Psi Chi recognizes the academic achievement of students who meet or exceed exacting eligibility standards. The purpose of Psi Chi is to advance the science of psychology, and to encourage, stimulate, and maintain scholarship. To be nominated a student must be a declared major or be enrolled in the minor program in psychology, have completed three semesters of college study, and maintained a 3.0 cumulative grade point average and a 3.0 grade point average in at least nine credit hours of psychology courses.

**Sigma Tau Delta.** Sigma Tau Delta's central purpose is to confer distinction upon students of the English language and literature in undergraduate, graduate, and professional studies. Sigma Tau Delta strives to confer distinction for high achievement in English language and literature in undergraduate, graduate, and professional studies; provide, through its local chapters, cultural stimulation on college campuses and promote interest in literature and the English language in surrounding communities; foster all aspects of the discipline of English, including literature, language, and writing; promote exemplary character and good fellowship among its members; exhibit high standards of academic excellence; and serve society by fostering literacy.

**Sigma Beta Tau.** Sigma Beta Tau, also known as the Society of the Blue Triangle, is The College of Engineering alumni honor society. Western New England University graduating engineering seniors whose academic work has consistently been of honor quality and have a GPA of 3.3 or greater is eligible for membership. Members of Tau Beta Pi may be invited to join Sigma Beta Tau.

**Tau Beta Pi.** Tau Beta Pi is the national honor society for engineering. Outstanding juniors and seniors inducted into Tau Beta Pi receive national recognition for their academic and professional achievements. Student members of Tau Beta Pi are also invited to join the local engineering honorary, Sigma Beta Tau, which has an active alumni group.

## Athletics

### The Alumni Healthful Living Center

The Alumni Healthful Living Center is an athletic and recreational facility designed to address the University's concern for students' well being. The Center offers programs in health services and education, recreational activities, and physical education. The University's intercollegiate and intramural programs are conducted there. Facilities for these activities include a basketball court; an eight-lane swimming pool; indoor track; wrestling room; courts for racquetball, handball, squash, and tennis; a studio for aerobics and dance; a Wellness Center; two weight rooms; and a multipurpose field house.

### Intercollegiate Competition

Western New England University offers a varsity intercollegiate program for both men and women in a wide variety of sports. Currently, varsity teams are fielded in baseball, basketball, cross country, football, golf, ice hockey, lacrosse, soccer, tennis, and wrestling for men; basketball, cross country, field hockey, lacrosse, soccer, softball, swimming, tennis, and volleyball for women. As active members of NCAA Division III and The ECAC, Western New England University belongs to The Commonwealth Coast Conference for most sports. The Golden Bears strive for athletic excellence.

### Other Opportunities

The University's variety of sports offered is based on student interest. The objective of the intramural program is to promote healthy and vigorous physical activity for participating students. Equipment and supervision is provided by the University.

## ROTC

The University offers both Army and Air Force Reserve Officer Training Corps (ROTC) programs. The Army ROTC (p. 22) program is located on campus with a full-time staff. Air Force ROTC (p. 22) is through the University of Massachusetts at Amherst. Freshman and sophomore ROTC classes are open, with no obligation, to students interested in the development of leadership, study skills, and outdoor skills. Further ROTC training can lead to a commission as an officer in the Army or Air Force with service in the National Guard, Reserves, or on Active Duty.

Scholarships, which are merit-based and provide funds for two or three years, are available. For further information, see the Financial Aid section of this catalogue. Any Army ROTC student who desires a commission in the National Guard or Army Reserves can obtain a guaranteed reserve forces duty scholarship.

The University encourages students who are interested in the ROTC programs to confer with ROTC staff to determine eligibility requirements.

## **Standards of Behavior and Student Accountability**

In order to assist students in determining a framework in which to measure the acceptability of daily living activities, a code of student conduct has been formulated. This document was endorsed by the Student Affairs Committee of the Faculty Senate, the Student Senate, and the Graduate Council and approved by the Board of Trustees.

The Student Conduct Code is to be referenced in the adjudication of the student disciplinary process. The Standards of Behavior and Student Accountability contain specific information on such things as the use of alcoholic beverages; hazing; student organization membership requirements; right of peaceful assembly; possession, use, or distribution of drugs and narcotics; use of campus facilities; respect for a multicultural population; and sexual harassment.

Students are urged to familiarize themselves with the responsibilities outlined therein.

The Student Conduct Code for both undergraduate and graduate students is in the Student Handbook, which is available in the Office of the Vice President for Student Affairs and the Dean of Students' website, <http://www1.wne.edu/studentaffairs/?dropmenu=parents>.

## EXPENSES AND FINANCIAL AID

### Tuition

#### Undergraduate

##### Full-time Students

(12 hours or more per semester)

##### Basic Annual Fees (2016-2017)

	Arts and Sciences/Business	Engineering
Tuition (12-17 credit hours per term)	\$32,524.00*	\$33,990.00*
Student Activities Fee	\$300.00	\$300.00
Comprehensive Services Fee	\$2,050.00	\$2,050.00
Tuition and Fees	\$34,874.00	\$36,340.00

##### Residential Fee

Room (two occupants) and Board	\$13,214.00	\$13,214.00
<b>Total</b>	<b>\$48,088.00</b>	<b>\$49,554.00</b>
Health Insurance Fee (subject to waiver)	\$ 2,515.00**	\$ 2,515.00**

\*Students who select programs of more than 17 credit hours are charged at a rate of \$1,084.00 per credit hour for each credit hour over 17.

\*\*Fiscal Year 2015-2016 rate.

Tuition and fees for the first semester are due and payable by August 1. Second semester tuition and fees are due and payable by January 2. In order to avoid unnecessary delay at the time of registration, all students are advised to remit payments by mail prior to the due dates.

##### Part-time Students – Undergraduate

(Less than 12 hours per semester)

Tuition per credit hour (2016-2017)	\$613.00
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##### Graduate Students

##### Graduate students are charged per credit hour as follows:

Tuition per credit hour (2016-2017)	\$804.00
MAET	\$1,050.00 per course
MAMT	\$1,050.00 per course
MEEE	\$1,050.00 per course
Engineering Tuition	\$1,074.00 per credit
Ph.D.	\$1,280.00 per credit

##### Pharmacy Students

##### Basic Annual Fees (2016-2017)

Tuition	\$40,428.00
Pharmacy Supplemental Fee	\$708.00
Comprehensive Service Fee	\$1,410.00

Student Activities Fee	\$200.00
Health Insurance Fee (subject to waiver)	\$2,515.00**

\*\*Fiscal Year 2015-2016 rate.

### Fee Structure

#### All Students

**Application Fee.** The University application fee of \$40 must accompany the initial application for admission. This fee is not refundable.

**Laboratory Fees.** Laboratory fees are required for some courses and are indicated in the course descriptions. The charge covers the use of laboratory equipment, machinery, chemicals, supplies, computers, and business machines. The laboratory fees are payable at the time of registration and are not refundable.

**Transcript Fee.** As of 7/1/2014, there will be a transcript fee of \$7.00 per transcript.

#### Full-Time Students

**Comprehensive Services Fee.** The Comprehensive Services Fee covers some of the costs associated with the Alumni Healthful Living Center, Campus Center, health services, counseling, placement services, technology fees, and other support activities at the University. The fee is \$1,025.00 per semester for full-time undergraduate students.

**Health Insurance Fee.** The University makes available a general health insurance program provided by an outside carrier. This program is optional. Coverage begins at the start of the school year and continues for 12 months. The fee for this program appears on the statement of charges, and, if a student elects not to participate, the waiver card included with the statement must be returned to the Health Services Office. See the section entitled “Immunization Requirements” in the “Legal Matters” chapter of this volume for insurance requirements necessary for registration.

**Student Activities Fee.** Each student, by vote of the Student Association and endorsement of the Student Senate, is assessed \$150 per semester as a Student Activities Fee. Payable at the beginning of each semester, the fee is not refundable. Funds derived are allocated through the Student Senate and provide the principal source of funding for social and cultural programming, traditional events such as Winter Weekend; student clubs and organizations; student publications such as the newspaper and yearbook; and the radio station. The Student Activities Fee also supports publication of the *Student Handbook* and allows for cooperative funding of such programs as new student orientation, minority and international student groups, and Family and Friends Weekend.

#### Residential Fees

University housing is available for full-time students, both men and women, in a variety of living styles. Annual room and board fees for the 2016-2017 academic year for each student are as follows:

Double Occupancy/ 20 meal plan	\$13,214.00
Gateway Apartments	*\$7,398.00
Evergreen Village	*\$10,340.00
Southwood	*\$10,580.00

\*Room fee only.

**General Housing Policy:** To be considered for residence in University housing, the student must be actively enrolled at the University as a full-time, undergraduate degree candidate. Student housing is assigned for the full academic year, unless the student is graduating or withdrawing from attendance at the University, or provides notification, as required, of his/her intent to live off campus. Since campus residency is optional at the University, residency related charges are applied to a student's account only after (s)he has initiated a request for accommodations through the provision of a nonrefundable, nontransferable housing verification payment and fully completed the housing selection process.

**Payments and Billing for Campus Residency:** The procedure differs for incoming and currently matriculating students, as follows.

For incoming students, the housing verification payment (to the amount of \$300.00) is due immediately upon notification of acceptance from the Admissions Office or as otherwise defined by the University. Following receipt of this payment, the student will be billed the residency fee (room and board) as an anticipated resident student. Receipt of this payment also authorizes student-initiated participation in the online housing selection process, known as Housing Management Application (HMA). To confirm campus residency, the Student is responsible for completing all components of the online process. Otherwise, the University presumes the student has made other arrangements for accommodations as a commuter.

Currently matriculating students are expected to provide the housing verification payment (to the amount of \$500.00) by the application deadline. This is a non-refundable, non-transferable payment. Receipt of this payment authorizes student-initiated participation in the online housing selection process, known as Housing Management Application (HMA). To confirm campus residency, the student is responsible for completing all components of the online process. Otherwise, the University rightfully presumes the student has made other arrangements for accommodations as a commuter. Any student who submits this payment late will be placed on a waiting list and will choose his/her housing on a space available basis after students who submitted their housing verification payment on time. Proper submission of the housing verification payment and completion of the HMA process will result in the appropriate residency fee (room and board charge, if applicable) billed to the student's account with the University.

**Withdrawal from campus residency resulting in commuter status:** The University presumes the student is in residence unless (s)he notifies the Residence Life Office, in writing, to the contrary. Written notification must precede other components of the check-out process, such as relinquishment of the key issued at the time of occupancy and/or completion of the room condition record.

1. **2016 Fall Semester:** If the student notifies the office of his/her decision to commute by the deadline stated in the Resident Student Housing Agreement (written correspondence received as of this date) then all room and board charges for the fall semester except the housing verification payment will be credited to the student's account. However, if the Student notifies the office, in writing, of his/her decision to commute after this deadline, all room and board charges for the fall semester will be required to be paid in full by the student.
2. **2017 Spring Semester:** If the student notifies the office of his/her decision to commute by the deadline stated in the Resident Student Housing Agreement (written correspondence received as of this date) then all room and board charges for the spring semester except the housing verification payment will be credited to the student's account. However, if the student notifies the office, of his/her decision to commute after this deadline, all

room and board charges for the spring semester will be required to be paid in full by the student.

**Complete withdrawal from the University:** All room and board charges except the housing verification payment will be credited to the student's account if (s)he has officially withdrawn from the University prior to the first day of classes for the 2016 fall semester or 2017 spring semester.

All rates are for occupancy on a semester basis and are not refundable or transferable fees. Status as a full-time student must be maintained through mid-semester to qualify for university housing. Failure to meet the established payment deadlines releases the University from any obligation to maintain the housing reservation.

Normally, University residence units must be vacated during regularly scheduled vacation periods. At the close of the academic year for which residency has been authorized, all of the student's personal property is to be removed from the premises and the appropriate checkout procedure is to have been completed. Items left behind shall be considered abandoned and disposed of by the University.

University insurance does not cover any personal property. Students will want to provide coverage through their own or parent insurance program in the event of fire, personal loss, etc.

**Residence Hall/Area Damage Deposit.** Students are required to leave their living space in good order when departing from the University. A damage deposit of \$100 per student is required of all resident students. Damages are charged against occupants when necessary. This deposit is refundable at the end of the senior year or on withdrawal from the University. The refund will be based upon the condition of the living space at the time of departure.

#### **Board**

Students residing in traditional or suite-style units are required to participate in a comprehensive meal plan. Students residing in Gateway Village apartments, Evergreen Village, Southwood Hall, and commuting students may choose to participate in a variety of alternative meal plans. Individual meals are also available on a cash basis. Meal points may be purchased in a variety of denominations and can be used for any food service on campus.

No meals are served during regularly scheduled vacation periods.

On a 20-meal plan, the board fee for the 2016-2017 academic year is \$6,272.00.

Board fees are billed on a semester basis and are due and payable by August 1 for the fall semester, and January 2 for the spring semester. Board fees are not refundable either in whole or in part. Food Service professionals are available to assist with dietary concerns, such as food allergies. Detailed documentation from a physician, outlining specific food restrictions and/or needs, should be provided to the Office of Residence Life. An opportunity will then be coordinated to review specific dietary concerns with personnel in Food Service.

Students who fail to follow this process, regardless of its outcome, are not relieved of financial obligations.

#### **General Financial Information**

Checks or money orders should be made payable to Western New England University. If sent by mail, they should be addressed to Student Administrative Services.

The Trustees of the University reserve the right to change tuition rates or fees whenever it is deemed necessary.

Students are not permitted to attend any University exercise or class session until they have complied with all regulations concerning registration and have satisfied all financial obligations or made satisfactory arrangements for payment with Student Administrative Services.

All financial obligations to the University must be met before a student may qualify for re-enrollment, a certificate of honorable dismissal, a transcript, or a diploma. The University retains the right under Title IV regulations to withhold student's transcripts because of delinquent loans.

Tuition and fees are due and payable by August 1 for first semester, by January 2 for second semester, or at the time of registration unless arrangements have been made for payments as described in the sections on Prepayment Plan, Tuition Paid by Employers, or Employer Extension Plan.

**Auditing** . There are no special rates for auditing a class. Students granted permission to audit a course must pay the regular tuition and fees which apply to the course.

#### **Acceptance Deposit**

Candidates for full-time admission or readmission, upon receiving final notice of acceptance from the director of admissions, are obliged to forward a nonrefundable acceptance deposit of \$100. Payment of this fee must be made by the date indicated in the candidate's notification of acceptance and will not, under any circumstances, be refunded. The deposit will be applied toward the tuition charges in the first semester of attendance in the academic year for which acceptance has been granted.

#### **Expenses for Books and Materials**

The cost of necessary books, equipment, and materials varies depending on the courses taken. The cost usually ranges from \$1,000 to \$1,400 per year.

#### **Withdrawal and Refund Policy**

The University operates on an academic term basis for which commitments are made to teaching staff and to others whose services are essential to the operation of the University. As such, fees (other than tuition) and room and board charges are non-refundable. Tuition is refunded only as stated in the Refund Schedule below. Additionally, tuition and fees are not transferable to future semesters. Refunds will only be granted to students who voluntarily withdraw and comply with the Procedures for Withdrawing as delineated below. Where a student has been separated, dismissed or suspended from the University for academic, disciplinary, or other reasons, refunds will be granted in accordance with the Refund Schedule below.

#### **Refund Schedule**

Refunds are made to students who voluntarily withdraw based on the following 15-week class schedule:

- 100% of the tuition charge, less the tuition deposit, will be refunded if the official withdrawal date is prior to the first day of classes;
- 75% of the tuition charge, less the tuition deposit, will be refunded if the official withdrawal date is during the first week of classes;
- 66 2/3% of the tuition charge, less the tuition deposit, will be refunded if the official withdrawal date is during the second week of classes;

- 33 1/3% of the tuition charge, less the tuition deposit, will be refunded if the official withdrawal date is during the third week of classes; and
- 25% of the tuition charge, less the tuition deposit, will be refunded if the official withdrawal date is during the fourth week of classes.

No tuition refunds will be granted after the fourth week of classes.

#### **Procedure for Withdrawing**

If it becomes necessary for full-time degree students to withdraw or request a leave of absence from the University, an official form must be completed and filed with the Academic Support Center. This form will be made part of the permanent record maintained in Student Administrative Services (SAS). Prior to completing the withdrawal form, full-time degree students are expected to consult with the dean of First Year Students and Students in Transition in order to complete a formal exit interview. When such conditions as severe illness or absence from the area prevent a student from filing the withdrawal form in person, an application for withdrawal by mail is acceptable. A letter should state the reasons necessitating the withdrawal and should be mailed to the dean of First Year Students and Students in Transition. In the case of part-time or graduate students, withdrawal forms are filed with the Academic Dean's Office of the College in which the student's major is administered. The date recorded by the reviewing administrator is considered to be the date of withdrawal.

Any approved refunds will be computed on the basis of this date. Absence from class without completing a withdrawal form does not constitute withdrawal and submission of course drop forms may not substitute for a withdrawal. No refunds are made on any fees other than tuition (with the exception of the dorm damage deposit). Students who withdraw with an unpaid balance will be financially liable for any amount remaining unpaid after a refund credit, if any, has been applied to the balance. No student may withdraw from the University in good standing unless all financial obligations have been met.

Any refund resulting from a reduction in the number of hours registered will be made on the basis of the above schedule. Students taking between 12 and 17 hours per term will not have any adjustment in tuition if, after the course reduction, they are still enrolled in 12 to 17 credit hours. The Higher Education Amendments of 1998 require students receiving Federal Title IV financial assistance who withdraw on or before 60 percent of the way through the semester to have their assistance reduced based on calendar days enrolled versus the length of the semester. Programs affected are Pell Grants, Supplemental Education Opportunity Grants, Federal Perkins Loans, Federal Direct Ford Subsidized Loans, Federal Direct Ford Unsubsidized Loans, and Federal Direct Ford Plus Loans but not Federal Work-Study. The calculation of the amount to be returned to these funds may result in the student owing a balance to the University and/or the Federal Government. Institutional scholarships and grants will be adjusted according to the same percentage as the tuition charges. State Aid will be adjusted according to the same percentage as the federal aid.

#### **Late Payment Charge**

A finance charge will be computed by a period rate of one percent per month, which is an annual percentage rate of 12 percent applied to the prior balance after deducting current payments and/or credits appearing on the statement. In no case will a student be able to continue enrollment if the previous semester's charges are not paid.

### Payment Plan

Students who wish to pay their University charges over a 10 or 12 month period may elect this plan. An application form is required to be completed specifying the amount to be budgeted under this plan. There are no interest or finance charges to use this plan. There is a \$50 application and processing fee.

The plan period starts May 1 or July 1 for the academic year beginning in the fall. There is a down payment required if enrollment begins after the start date. A payment schedule is issued and payments are due promptly each month. If the student does not attend, all payments made will be refunded, less nonrefundable charges.

### Sibling Discount

This is a \$1,000/year discount offered to each sibling when a family has more than one full-time undergraduate child attending Western New England University in a given year. Each student receives a \$1,000 credit applied to the tuition billing. The discount only applies to sibling relationships and is only available to full-time undergraduate students.

### Employer Extension Plan

This tuition is appropriate for students who receive reimbursement that is paid directly to them, not to the University. Under this plan students have their employer verify eligibility to participate in the plan. Students may defer two-thirds of their tuition payment until 30 days after the semester is completed.

### Tuition Paid Directly by Employers

Students whose tuition is underwritten by their employers must furnish at the time of registration, or immediately thereafter, an authorization from the employer indicating that the company is directly paying the cost of tuition. Students with direct pay by their employers remain responsible for their bills.

### Financial Aid

The University offers a program of financial assistance through scholarships, grants, loans, and part-time employment. Resources are, however, limited. Students and their families are expected to defray as much of their educational expenses as possible. Financial aid should be considered only as supplemental assistance. Financial aid programs, policies, and procedures for applying are subject to change. Visit the website at [www1.wne.edu/sas](http://www1.wne.edu/sas) or consult Student Administrative Services for current details.

Work opportunities are available both on campus and in the community, and many students earn a portion of their college expenses through part-time employment. Because of the academic demands upon a student's time, no student should work more than 20 hours per week.

Prospective students must be officially accepted for admission into a degree program at the University before their applications for financial assistance will be considered. Part-time students must have final approval into a degree program and be enrolled in at least six credits per term to be eligible for financial aid. Graduate students must have final approval into a degree program and be enrolled in at least 3 credits per term to be eligible for financial aid. Students applying for any federal or state aid must submit the Free Application for Federal Student Aid (FAFSA) for processing as soon as possible after January 1. These forms may be accessed at [www.fafsa.gov](http://www.fafsa.gov). Applications for prospective students are processed on a rolling basis beginning on March 1. All FAFSA's for returning students must be received by Western New England University before April 15 in order to receive priority consideration. Verification

of income will be verified by the completion of the IRS Data Retrieval on the FAFSA. This should be done by May 1st for priority consideration. Therefore, students are encouraged to submit the FAFSA and file federal taxes as early as possible. Late applicants may be considered for financial aid if sufficient funds are available. Aid is generally disbursed on an August to May basis. All students must reapply for financial aid each year, and aid in any year does not guarantee aid in subsequent years.

Students must make satisfactory progress toward their degree requirements to qualify for financial aid and scholarships. Satisfactory progress includes maintaining a prescribed grade-point average and successfully completing a minimum number of credit hours each year. The requirements vary depending on the academic level and enrollment on a full-time or part-time basis. Copies of the complete "Standards of Satisfactory Progress" policy are available from Student Administrative Services at [www1.wne.edu/sas](http://www1.wne.edu/sas).

## Federal Financial Assistance Programs

The U.S. Department of Education provides financial aid for higher education. The following paragraphs serve as a guide to the six major financial aid programs in the U.S. Department of Education. These programs are available to full-time and part-time undergraduate students.

### Federal Pell Grants

The Pell Grant program is available to undergraduate students demonstrating financial need. Eligible students may receive up to \$5,645 each year. Students may apply for these grants by submitting the Free Application for Federal Student Aid. These forms may be obtained from a high school guidance counselor or at [www.fafsa.gov](http://www.fafsa.gov).

### Federal Supplemental Educational Opportunity Grants

Supplemental Educational Opportunity Grants are available to a limited number of undergraduate students with extreme financial need. These grants range from \$200 to \$4,000 a year.

### Federal Perkins Loan

The University has established and administers a Perkins Student Loan Fund. Eligible students may borrow amounts not exceeding \$27,500 aggregate for pre-baccalaureate, and \$60,000 aggregate for all undergraduate and graduate years. Western New England University has a \$4,000 maximum per year.

### Federal Work-Study

Part-time student employment is available to many students with financial need. Preference is generally given to applicants having the greatest financial need.

### Federal Direct Ford Student Loans

Eligibility for a subsidized loan is based on financial need as determined by the analysis of a Free Application for Federal Student Aid. If a student does not qualify for a need based loan, the student may apply using the same application process and loan limits for an unsubsidized loan. The interest that accrues during periods of enrollment for a subsidized loan is paid by the federal government. The interest that accrues during periods of enrollment for an unsubsidized loan is paid by the student. Application can be made by completing the Free Application for Federal Student Aid. Freshman students may borrow up to \$3,500 per year, sophomores may borrow up to \$4,500 per year, juniors and seniors may borrow up to \$5,500 per year. All undergraduate students may borrow up to an additional \$2,000 in an unsubsidized loan. Graduate students may borrow up to \$20,500 per year. The total amount that undergraduates may borrow

is \$31,000, while the total for graduate students is \$138,500 (including undergraduate loans). First and second year independent students may borrow up to \$4,000 additionally under the unsubsidized loan program. Third and fourth year students may borrow up to \$5,000 additionally under the unsubsidized loan program.

### **Federal Direct Parent Loan for Undergraduate Students (PLUS)**

Parents of dependent undergraduate students may borrow up to the cost of attendance minus any other financial aid resources under the PLUS Program. The interest rate for the PLUS loan is adjusted annually with a cap of nine percent. To apply go to <https://studentloans.gov/> for application and Master Promissory Note.

## **Other Financial Assistance**

### **State Scholarships**

Many states have established scholarship and grant programs to assist residents of their state. In Massachusetts, for example, students judged to be eligible can receive a \$1,600 award while attending a private institution within the Commonwealth. Other areas, such as Connecticut, New Hampshire, Pennsylvania, Rhode Island, Vermont, Maine, and Washington, DC, have similar programs. Application can be made by completing the Free Application for Federal Student Aid or by writing to your state Board of Higher Education. This program is available to full-time undergraduate students.

### **Outside Assistance**

Many scholarship and financial assistance programs are available to deserving students through local and state civic groups, clubs, and organizations. Students are urged to seek out such programs in their local areas. Student Administrative Services also has several external scholarship publications for students to utilize. One may reference on the Internet ([www.finaid.org](http://www.finaid.org) or [www.fastweb.com](http://www.fastweb.com)) for links to other sources.

### *Alternative Financing*

Several banks offer loans to students and parents to help pay for college. Loans can range from \$2,000 to cost of attendance. The interest rates are variable. No collateral is required, and borrowers must have a good credit rating and the ability to repay. Student Administrative Services has additional information and can refer families to participating lenders. These programs are available to full-time and part-time students.

### **Joan B. Mulcahy Student Loan Fund**

In 1971 an emergency student loan fund was established through the generosity of faculty, staff, students, and friends of the University in memory of Joan B. Mulcahy. This fund is used to assist students in need of lesser loans for relatively short periods of time and for help as emergencies develop. The fund is self-supporting through repayments, and loans are granted on an interest-free basis. The fund is administered by the dean of students. This program is available to full-time and part-time undergraduate students.

## TRAVEL DIRECTIONS

### From the East and West (Boston, Albany) via the Massachusetts Turnpike (I-90)

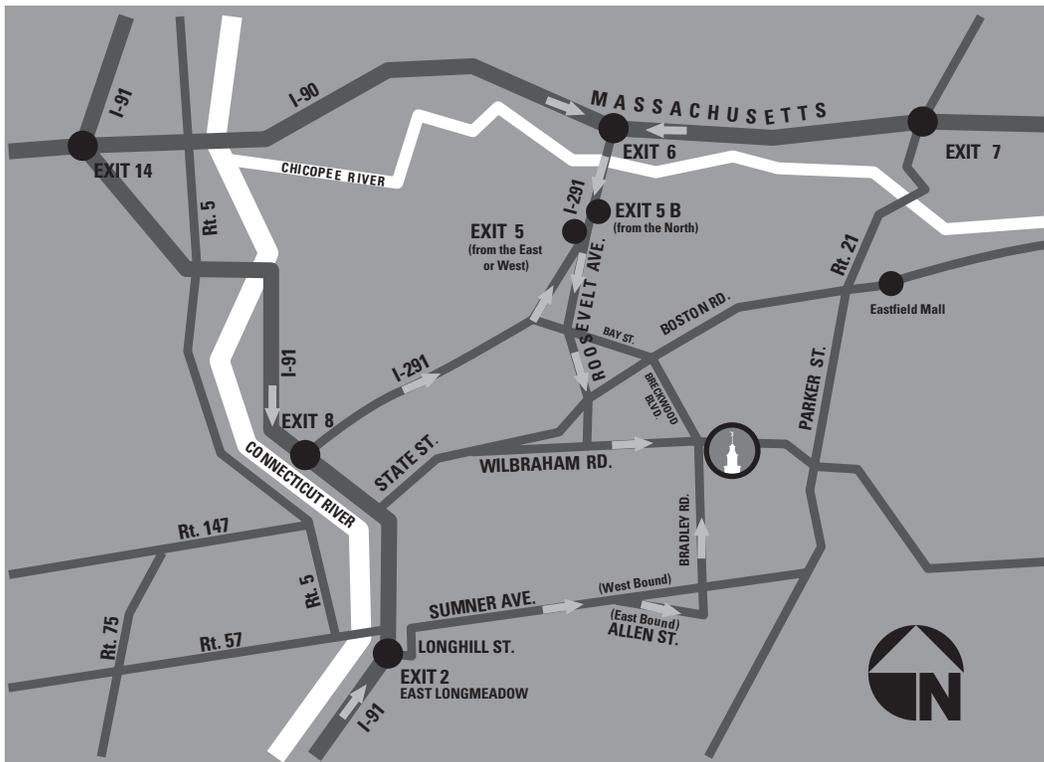
Leave the Mass. Pike at Exit 6. Turn left onto I-291. Take Exit 5 off I-291 (“Route 20-A West to East Springfield”). Bear right at the end of the exit ramp on Page Blvd. Take the left at the first light onto Roosevelt Ave. Take Roosevelt Ave. 2.5 miles to the intersection with Wilbraham Road (fifth traffic light). Turn left onto Wilbraham Road and follow it 1.5 miles through the second light. Turn right into the parking lot of the Kevin S. Delbridge Welcome Center. (Total 5.6 miles from Mass. Pike.)

### From the North via Interstate 91

Leave I-91 at Exit 8, (“Ludlow, Boston 1-291”). Travel to Exit 5B, (“East Springfield”). Turn right off of the ramp onto Page Blvd. At the first light, turn left onto Roosevelt Ave. Take Roosevelt Ave. 2.5 miles to the intersection with Wilbraham Road (fifth traffic light). Turn left onto Wilbraham Road and follow it 1.5 miles through the second light. Turn right into the parking lot of the Kevin S. Delbridge Welcome Center. (Total 8.6 miles from I-91.)

### From the South via Interstate 91

Leave I-91 at Exit 2 (“East Longmeadow”). Follow signs (“Route 83”) to the light at the intersection of Longhill and Sumner Ave. Turn right onto Sumner Ave. Travel straight on Sumner Ave. (which becomes Allen St.) to the light at the intersection of Allen St. and Bradley Road (3.2 miles). Turn left onto Bradley Road and travel 1.6 miles to Wilbraham Road and turn right. Travel 0.2 miles and turn right, into the parking lot of the Kevin S. Delbridge Welcome Center. (Total 5.7 miles from I-91.)





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