

FRAMINGHAM STATE UNIVERSITY



UNDERGRADUATE CATALOG  
2016-2017

## ACCREDITATION

Framingham State University is accredited by the [New England Association of Schools and Colleges, Inc. \(NEASC\)](#), a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college.

### PROGRAM ACCREDITATION BY:

The baccalaureate degree program in nursing at Framingham State University is accredited by the [Commission on Collegiate Nursing Education \(CCNE\)](#).

[Accreditation Council for Education in Nutrition and Dietetics \(ACEND\)](#) of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312-899-0040; for Food and Nutrition Major, Coordinated Program in Dietetics and Dietetics concentrations.

[National Association of Schools of Art and Design \(NASAD\)](#)

[National Council for Accreditation of Teacher Education; \(NCATE\)](#).

### APPROVED BY:

American Chemical Society (ACS).

Initial and Professional Licensure Programs for educators are approved by the Department of

Elementary and Secondary Education (DESE) of the Commonwealth of Massachusetts, and the

National Association of State Directors of Teacher Education and Certification (NASDTEC).

Interstate Certification Compact on Certification of Educational Personnel.

### MEMBER OF:

American Association of Colleges of Nursing

American Association of Colleges for Teacher Education

American Association of State Colleges and Universities

Association for Continuing Higher Education

College Entrance Examination Board

Council of Graduate Schools

Council for the Advancement and Support of Education

International Assembly for Collegiate Business Education (IACBE)

National League for Nursing

New England Association of Schools and Colleges (NEASC)

The College Board

University Professional and Continuing Education Association

### NOTICE TO STUDENTS

The rules, regulations, policies, fees, and other charges, courses of study, and academic requirements that appear in this catalog were in effect at the time of its publication. Like everything else in this catalog, they are published for informational purposes only, and they do not constitute a contract between the University and any student, applicant for admission or other person. Whether noted elsewhere in this catalog or not, the University reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees and other charges, courses of study and academic requirements. Whenever it does so, the University will give as much advance notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

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# Mission Statement

## **PUBLIC HIGHER EDUCATION SYSTEM MISSION STATEMENT**

The public college and university system in the Commonwealth of Massachusetts comprises fifteen community colleges, nine state colleges and the five campuses of the University of Massachusetts. The system exists to provide accessible, affordable, relevant, and rigorous academic programs that adapt to meet changing individual and societal needs for education and employment. All campuses are committed to operating effectively and efficiently in order to maintain tuition and fees at a level as low as possible, while providing a high-quality education to every student who qualifies for admission. The public system is committed to continuous improvement and accountability in all aspects of teaching and learning. The Board of Higher Education and institutional boards of trustees recognize their responsibilities to the taxpayers and residents of Massachusetts in the performance of their roles and responsibilities. Massachusetts public higher education is a system with a distinguished past, increasing pride, and unlimited potential.

## **STATE UNIVERSITY MISSION STATEMENT**

There are six comprehensive state universities - Bridgewater State University, Fitchburg State University, Framingham State University, Salem State University, Westfield State University, and Worcester State University - and three specialized colleges - Massachusetts College of Art, Massachusetts College of Liberal Arts and Massachusetts Maritime Academy. All institutions integrate liberal arts and sciences programs with professional education, and the three specialized colleges also focus on academic areas identified in the colleges' name.

Each institution places a special emphasis on teaching and lifelong learning, and promotes a campus life that fosters intellectual, social and ethical development. Committed to excellence in instruction and to providing responsive, innovative and educational programs of high quality, they seek to develop each student's critical thinking, quantitative, oral and written communications skills, and practical appreciation of the arts, sciences and humanities as they affect good citizenship and an improved quality of life. The state system provides a campus environment where the ideas, values, perspectives and contributions of all students are respected.

Massachusetts state universities & colleges are strategically located to facilitate access to baccalaureate and master's degree programs for Commonwealth residents who meet their high standards for admission. In recognition of their responsibilities to Massachusetts taxpayers to manage their resources efficiently and to maintain tuition and fees at a level as low as possible, each campus has a distinctive academic focus based upon its established strengths and regional and state needs. Each institution is a leader and resource for the community and contributes to the region's cultural, environmental, and economic development.

## FRAMINGHAM STATE UNIVERSITY MISSION STATEMENT

Framingham State University prepares students for a productive life, enhanced by learning and leadership that will contribute to the culturally diverse world of the twenty-first century.

Founded by Horace Mann in 1839 as America's first public teachers' college, Framingham State University today offers undergraduate and graduate programs encompassing the arts and sciences and professional studies.

Committed to excellence, the Framingham State University learning community comprises teacher-scholars, librarians, students, and staff who promote free inquiry, the respectful exchange of ideas, ethical conduct, and the belief that diversity in its many forms is essential to the educational experience. In an environment that supports active, collaborative learning, students work closely with faculty to engage significant bodies of knowledge and develop their ability to gather and evaluate information, communicate effectively, think critically and creatively, reason quantitatively, and apply information and emerging technologies.

At Framingham State University teaching is the primary role of faculty, who engage in their disciplines through instruction, scholarship, and service on campus and in their professional communities. The University serves as an important educational and cultural center in the MetroWest region of Massachusetts.

A Framingham State University education cultivates thoughtful, responsible local and global citizens, prepares students for a career, and positions them for success.

## FRAMINGHAM STATE UNIVERSITY VISION STATEMENT

Our vision is to create a vibrant and innovative educational environment that is dedicated to academic excellence, ethical citizenship, personal and professional growth, global stewardship, and public purpose and commitment through an inclusive and collaborative community.

## FRAMINGHAM STATE UNIVERSITY CORE VALUES

The following shared core values direct our thinking, planning, actions, and initiatives:

- *Academic Excellence:* We strive to inspire a culture informed by the joy and work of learning, in which curiosity, discovery, innovation, and excellence are the driving forces in everything we do.
- *Ethical Citizenship:* We seek to foster a culture of ethics, integrity and respect, such that it creates the fertile ground that motivates our work and work ethic.
- *Personal and Professional Growth:* We aspire to create a nurturing culture where all thrive and are supported in their own paths toward lifelong growth and leadership in personal and professional ways.
- *Global Stewardship:* We endeavor to advance global understanding, empathy and stewardship for people and the environment, embracing diversity and a sense of community in both local and global settings.
- *Public Purpose and Commitment:* We strive to construct a community that is committed to public purpose, informed action and service.
- *Inclusive and Collaborative Community:* We seek to encourage a supportive, diverse, collaborative and cohesive environment in which we learn from each other through informed, clear, and open communication.

## The History of Framingham State University

Framingham State University began in a building, still standing today, on the corner of Lexington Common on July 3, 1839. It had as its mission the training of teachers, and was the first state-supported normal school (a school which trains teachers) in the United States of America. Twice it outgrew its accommodations, moving first to West Newton and then to its present location on Bare Hill in Framingham in 1853. From the beginning, the Normal School met the challenge of being the first model by educating teachers who were in demand for the common schools of Massachusetts and, indeed, for schools throughout the nation. From the first class, Normal School graduates participated in the new field of education for the blind and the deaf. They traveled to the South and to the West to teach in schools being established for Blacks and Native Americans, and they went as missionaries to distant lands.

From 1848 to 1898 Framingham also conducted an advanced program for women who aspired to careers in high school and college teaching, school administration, law and medicine, opening unprecedented educational and career opportunities for these women. There were principals, professors, doctors, and writers among the early graduates, and women who participated in the suffrage and temperance movements; indeed, in all of the significant educational and social reforms of the nineteenth century. At the close of the nineteenth century, the first teachers of the household arts were graduated from a new program at Framingham, laying the foundation for studies in nutrition and food science, as well as clothing and textiles.

The student body increased steadily during the twentieth century and with it the size of the campus and the number of buildings. New programs and courses marked the increasingly professional character of the education offered, while extracurricular organizations were formed to enrich student life. In 1932 the Massachusetts Normal Schools became the State Teachers Colleges, and in 1960 they became State Colleges with a mandate to develop liberal arts curricula. Framingham, which had served only women, became coeducational in 1964. The University has continued to add departments such as Economics, Sociology, and Psychology, as well as career-orientated programs in Computer Science, Communications, Business Administration, and Nursing, among others, to increase the options for students and to meet the needs of the Commonwealth. In 2010, the Governor signed legislation changing the State Colleges to State Universities.

Today, Framingham State University is situated on a beautiful 54-acre campus in the suburban town of Framingham. The University's location in the economically vibrant Metro West area affords many opportunities for students and graduates alike. Approximately 6,499 full- and part-time students with 34 bachelor's degree programs and 23 master's degree programs are enrolled at the University.

# Undergraduate Admissions

All candidates seeking admission to an undergraduate degree program must submit an application to the Office of Undergraduate Admissions. Framingham State University (FSU), as an academic community, is committed to an admissions process that welcomes applications from men and women regardless of race, color, sex, sexual orientation, religion, creed, disability, veteran status, age, national origin, or marital status. The approval of candidates for admission is made on a selective basis. The University is interested in students whose preparatory program, scholastic achievement, aptitudes, interests, character, and established study habits give definite promise of success in a university program.

## CAMPUS VISITS

Prospective students are encouraged to visit campus. The Office of Undergraduate Admissions offers a series of information sessions and campus tours throughout the week and on select Saturdays. Please call 508-626-4934 or visit [www.framingham.edu/admissions/visit-us](http://www.framingham.edu/admissions/visit-us) to view available dates and to schedule an appointment.

In the case of inclement weather conditions on a day you have a scheduled visit, please call the Framingham State University Weather Emergency number, 508-626-4898. If classes are cancelled, all information sessions and tours will be cancelled as well.

## ADMISSIONS STANDARDS/SECONDARY SCHOOL

### ACADEMIC COURSE REQUIREMENTS

Framingham State University and the Massachusetts Department of Higher Education require the following college-preparatory academic units as a minimum:

- 4 courses in English
- 4 courses in Mathematics (Algebra I, II & Geometry or Trigonometry or comparable coursework) including mathematics during the final year of high school
- 3 courses in Science (2 years of lab science) \*
- 2 courses in Social Science
- 2 courses in Foreign Language (in a single language)
- 2 courses in College Preparatory Electives

*\* All students are strongly encouraged to elect three college-preparatory science courses which include a lab (this will be required beginning in fall 2017).*

Please refer to the Framingham State University Undergraduate Admissions web site at [www.framingham.edu/admissions](http://www.framingham.edu/admissions) or the Massachusetts Department of Higher Education website at [www.mass.edu](http://www.mass.edu) for more specific information regarding the minimum academic unit requirements.

Please note that these are minimum standards and meeting them does not guarantee admission to the University. Any offer of admission is conditional upon the student successfully completing all state and local requirements for a high school diploma.

## EARLY ADMISSION

High school juniors who have performed at a superior academic level can be admitted to Framingham State University prior to high school graduation. Candidates for early admission are required to obtain a letter from their high school principal stating that they will receive their diploma upon the successful completion of one or two semesters of college work. A personal interview with a member of the Admissions staff is required after submission of the application, the official high school transcript, and SAT/ACT results.

**FRESHMAN GRADE POINT AVERAGE (GPA) REQUIREMENTS**

Applicants in a comprehensive college preparatory curriculum must have a recalculated minimum cumulative grade point average of a 3.00 on a 4.00 scale or meet the minimum GPA requirement on the sliding scale listed below. Courses clearly identified on the high school transcript as Honors or Advanced Placement level will be given additional weight. Please note: All freshman applicants applying within three (3) years of high school graduation, even those with a recalculated GPA of 3.00 or higher, are required to submit SAT or ACT test scores.

Scores on the new writing section of the SAT will not affect the sliding scale for freshman applicants. The sliding scale will continue to be based on the combined critical reading (verbal) and math sections of the SAT.

Recalculated	Combined SAT-I V&M High School GPA <i>(ACT Equivalent in Italics)</i>
2.51 – 2.99	920 (19)
2.41 – 2.50	960 (20)
2.31 – 2.40	1000 (21)
2.21 – 2.30	1040 (22)
2.11 – 2.20	1080 (23)
2.00 – 2.10	1120 (24)
Less than 2.00	Not admissible

*Please note that these are minimum standards and meeting them does not guarantee admissions to the University.*

**NON-TRADITIONAL APPLICANTS**

Applicants who have not attended college and who apply for admission more than three (3) years after high school graduation will be evaluated on the basis of their secondary school record, standardized test scores, and a description of activities since leaving high school.

**SPECIAL APPLICANTS**

A limited number of students may be accepted based upon other signs of potential for academic success in a four-year college program such as steadily improving high school grades and/or test scores, special talent and strong secondary school recommendations. Please note that no freshman/transfer applicant with a weighted recalculated cumulative GPA below 2.00 may be admitted to Framingham State University.

**FIRST-YEAR FIRST-TIME APPLICATION PROCEDURE**

1. **Application Form:** Applicants are encouraged to utilize the online application available at:

<http://www.framingham.edu/admissions/application/index.html>

Applying online allows the applicant to verify whether all required materials have been received by the University within two weeks of receipt of the application. Please note: The online application requires payment of the application fee by MasterCard, Visa, or Discover. Students submitting an official fee waiver must utilize the “pay later” option on the web application or download the paper application available on the Framingham State University website.

2. **Application Fee:** Please submit the application fee listed on the current year’s application.



3. **Application Filing Dates:** All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

Fall Early Action (First-Year First-Time applicants only) November 15<sup>th</sup>

Fall Regular Decision (September entrance) February 15<sup>th</sup>

Spring Semester (January entrance) December 1<sup>st</sup>

After these dates, contact the Office of Undergraduate Admissions to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their files after the February 15<sup>th</sup> (fall) and December 1<sup>st</sup> (spring) preferred filing dates.

The University is able to offer on-campus housing to most qualified applicants who complete their files by the February 15<sup>th</sup> preferred filing date. Applicants for the January semester and those completing their fall applications after the February 15<sup>th</sup> preferred filing date are able to place themselves on the residence hall wait list if they have been offered admission and have submitted the required admissions deposit.

4. **SECONDARY SCHOOL RECORD:** The school record should include the applicant's entire academic transcript, including weighted class rank and/or grade point average (GPA). The applicant must request that the guidance office send the official record bearing the school's official stamp or seal directly to the Office of Undergraduate Admissions. Students may submit their applications with a high school transcript including grades through the end of the junior year. The school should forward first and second quarter senior year grades when available. A copy of the student's schedule for the entire senior year should also be included. (Students with a General Education Equivalency (GED) or High School Equivalency Test (HiSET) must have an official score report forwarded to the Office of Undergraduate Admissions and submit an official high school transcript for the period high school was attended.) All students, including home-schooled applicants, must present a high school diploma, GED, or HiSET prior to entrance to the University.
5. **REQUIRED EXAMINATIONS:** Freshmen applicants are required to submit official score results of the SAT or ACT unless the applicant graduated from high school prior to 2012. Official test results must be sent directly to the University from the College Board. The College Board code number for Framingham State University is **3519**. Applicants are encouraged to take this test no later than January of their senior year. The ACT code number for Framingham State University is **1904**. All applicants who participated in ESL courses during their secondary school education (or whose secondary school instruction was not primarily in English) must submit the Test of English as a Foreign Language (TOEFL).  
  
Home-schooled students and graduates of non-accredited schools may be required to submit the results of additional nationally-normed tests such as the SAT Subject Tests.
6. **DESCRIPTION OF ACTIVITIES:** Students who are not currently in high school should submit a résumé or brief summary of activities that accounts for all time periods since leaving high school.
7. **COLLEGE COURSEWORK:** Students who expect to have completed any college course work *prior* to graduation from high school should apply as freshmen, but must list the appropriate information in the "College Information" section of the application.

8. **ADVANCED PLACEMENT or INTERNATIONAL BACCALAUREATE:**  
Students who plan to take or have taken Advanced Placement or International Baccalaureate exams should list the exams under the “Advanced Placement” section of the application and have official scores forwarded to FSU when available.

### **ADVANCED PLACEMENT/CLEP EXAMINATIONS**

Advanced Placement (AP) credit towards graduation will be awarded to candidates who obtain scores of three (3) or higher on the College Entrance Examination Board Advanced Placement Tests. Official score results must be forwarded directly to the Office of Undergraduate Admissions. The College Level Examination Program (CLEP) enables students to earn college credit by examination. Credit is awarded for scores of 50 or higher. For information concerning any of these tests, write the College Entrance Examination Board, Box 592, Princeton, NJ 08540, or Box 1025, Berkeley, CA 94701 or visit [www.collegeboard.com](http://www.collegeboard.com).

### **DEFERRED ADMISSION**

The Admissions Committee believes that, for some students, a year between high school and college can be of great value. To work, travel, read, and create without pressures can help some students gain a higher level of maturity that will be an asset throughout college life.

A student may apply for admission and, if accepted, reserve a place for the following year by submitting the required deposit and a written request to the Admissions Committee. Deferred admission is granted with the provision that the applicant will not be enrolled at any other college or university during this interim period without prior approval of the Office of Undergraduate Admissions at Framingham State University.

### **TRANSFER CREDIT POLICIES**

Each year more than 600 transfer students enroll at the University with advanced standing. Transfer credit is awarded for college-level courses at regionally accredited colleges and universities. Transfer credit is given only for courses in which the student received a grade of C- (1.70/4.00 scale) or higher. A Pass/Fail grade is not transferable. Coursework completed at the University prior to matriculation is treated as transfer credit. Transfer credits are not used in the calculation of the grade point average.

Students must complete a minimum of 32 course-credits, including courses for general education, major and major-related requirements, as well as open/free electives in order to earn their Framingham State University degree. A minimum of eight (8) Framingham State University course-credits must be taken post-matriculation to complete residency requirements. Transfer students must complete a minimum of five (5) Framingham State University course-credits post-matriculation in their major department and, if applicable, three (3) Framingham State University course-credits post-matriculation in the minor.

Once a student is accepted to the University as a degree candidate, all official transcripts are sent to the Office of the University Registrar to be reviewed by the transfer credit evaluator. All approved courses accepted in transfer will be awarded Framingham State University course-credit in an amount equal to the cumulative total number of semester credits transferred divided by four (4) and rounded to the nearest whole number. For example, if a student has five 3-credit courses (15 semester hours) accepted in transfer, four (4) Framingham State University course-credits will be awarded (an equivalent of 16 semester hours).

*Note: Applicants to the upper division Nursing program (Registered Nurses (RNs) only) should refer to the Nursing section of the catalog for additional information on requirements.*

### **TRANSFER GRADE POINT AVERAGE (GPA) REQUIREMENTS**

The following minimum standards have been established for transfer students:

1. 12-23 transferable college credits and a 2.50 college GPA;  

**OR**
2. Up to 23 transferable college credits, a 2.00 college GPA, and a high school transcript that meets the admission standards for freshman applicants;  

**OR**
3. 24 or more transferable college credits and a 2.00 college GPA.

Please note that these are minimum standards and meeting them does not guarantee admission to the University. The GPA/credit requirement is based upon the most recently attended higher education institution.

### **TRANSFER APPLICATION PROCEDURE**

1. **Application Form:** Signed and completed application. (Please refer to Freshman Application Procedures for additional information.)  
<http://www.framingham.edu/admissions/undergraduate/transfer-applicants.html>
2. **Application Fee:** Please submit the application fee listed on the current year's application.
3. **Application Filing Dates:** All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

Fall Regular Decision (September entrance)	March 15 <sup>th</sup> (for on-campus housing consideration)
Spring Semester (January entrance)	December 1 <sup>st</sup>

After these dates, contact the Office of Undergraduate Admissions to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their files after the March 15<sup>th</sup> (fall) and December 1<sup>st</sup> (spring) preferred filing dates.

The University is able to offer on-campus housing to most qualified applicants who complete their files by the March 15<sup>th</sup> preferred filing date. Applicants for the January semester and those completing their fall applications after the March 15<sup>th</sup> preferred filing date are able to place themselves on the residence hall wait list if they have been offered admission and have submitted the required admissions deposit.

4. **SECONDARY SCHOOL RECORD:** An official, final high school transcript indicating date of graduation is required of any applicants who graduated on or after 2012. For those who graduated prior to 2011 or have more than 24 transferable college credits, a copy of a high diploma will suffice in most instances. Students with a General Education Equivalency (GED) or High School Equivalency Test (HiSET) must have an official score report forwarded to the Office of Undergraduate Admissions and submit an official high school transcript for the period high school was attended. All students, including home-schooled applicants, must present a high school diploma, GED, or HiSET prior to entrance to the University.

5. **REQUIRED EXAMINATIONS:** SAT or ACT is required of transfer applicants, unless the applicant graduated from high school prior to 2010 or has completed 24 or more credit hours of college-level courses at the time of the application. Official score results must be forwarded directly to the University from the College Board. The College Board code number for Framingham State University is 3519. The ACT code number for Framingham State University is 1904.
6. **COLLEGE TRANSCRIPTS:** Submit official transcripts from all colleges and universities ever attended. If a student is enrolled elsewhere at the time of acceptance, a final official transcript for that semester must be submitted prior to the commencement of studies at Framingham State University. All applicants must disclose all colleges or universities ever attended regardless of whether courses were finished or credit was received. Failure to disclose this information may result in denial of admission or retroactive administrative withdrawal from the University without refund or course credits.  
  
*Please note: Only transcripts forwarded directly from the college or university the applicant attended to the Office of Undergraduate Admissions at Framingham State University are considered official transcripts. No decisions will be made by the Admissions Committee without official transcripts.*
7. **COURSES IN PROGRESS:** List all courses in progress or that you plan to complete prior to enrollment at Framingham State University (please indicate the exact course titles, course numbers, and credit hours for each course).
8. **DESCRIPTION OF ACTIVITIES:** Applicants who have not been attending college continuously since graduation from high school should submit a résumé or brief summary of activities that accounts for all time periods since leaving high school.
9. **CLEP/AP/IB/DSST:** Applicants presenting College Board CLEP (College Level Examination Program) scores, AP (Advanced Placement) scores, IB (International Baccalaureate), or DANTES Subject Standardized Tests (DSST) scores for college credit must have official results forwarded directly to the Office of Undergraduate Admissions for evaluation. Please list the exams taken on the application, under the “Advanced Placement or CLEP Examinations” section of the application.
10. **VALOR ACT ACACEMIC CREDIT EVALUATION POLICY AND MILITARY TRANSCRIPTS:** In accordance with the Massachusetts VALOR Act of 2012, admission applicants may submit their military transcript (as appraised by the American Council on Education (ACE)) for consideration of academic credit at the time of acceptance to determine whether the content is transferable into Framingham State University. Framingham State University reviews and evaluates the military transcript for academic credit, based on the recommendations from ACE, for transferability of credit in accordance with our university-wide policy.

### **SPECIAL APPLICANTS**

A limited number of students may be accepted based upon other signs of potential for academic success in a four-year college program such as steadily improving high school grades and/or test scores, special talent and strong secondary school recommendations. Please note that no freshman/transfer applicant with a weighted recalculated cumulative GPA below 2.00 may be admitted to Framingham State University.

## NEW ENGLAND REGIONAL STUDENT PROGRAM

This program enables residents of Connecticut, Maine, New Hampshire, Rhode Island, and Vermont to be given a tuition break for designated academic programs at Framingham State University. Subject to legislative funding, eligible students in this program pay a tuition rate 50% above the in-state tuition. The main eligibility requirement is that the program of study not be offered in a state college or university of the student's state of residence. During the 2016-2017 academic years, residents from Connecticut, Maine, New Hampshire, Rhode Island, and Vermont were eligible for reduced tuition rates for the following Framingham State University degree programs:

Connecticut	Fashion Design and Retailing; Food Science
Maine	Communication Arts; Fashion Design and Retailing; Global Studies
New Hampshire	Criminology; Fashion Design and Retailing; Food Science
Rhode Island	Business & Information Technology; Communication Arts; Criminology; Food Science; Global Studies
Vermont	Fashion Design and Retailing; Food and Nutrition

For additional information, contact the New England Board of Higher Education (NEBHE) at 45 Temple Place, Boston, MA 02111, [tuitionbreak@nebhe.org](mailto:tuitionbreak@nebhe.org) or call 617-357-9620.

## DEFERRED ADMISSION

A student may apply for admission and, if accepted, reserve a place for the following year by submitting the required deposit and a written request to the Admissions Committee. Deferred admission is granted with the provision that the applicant will not be enrolled at any other college or university during this interim period without prior approval of the Office of Undergraduate Admissions at Framingham State University.

## MASSACHUSETTS DEPARTMENT OF HIGHER EDUCATION TRANSFER AGREEMENTS

### MASSTRANSFER

Students who enroll in an approved transfer program Fall 2009 or later at Massachusetts state community colleges and maintain a cumulative grade point average of 2.50 may apply to Framingham State University and earn automatic admission to the pre-approved program of study between the Massachusetts State community college and FSU. Additionally, those students who earned a minimum GPA of a 2.00 at time of application but have completed the 34 credit hour MassTransfer Block (General Education) courses may not be eligible for admission into the preferred program of study at FSU but will receive credit for the MassTransfer Block; they will also transfer with the understanding they will need to complete no more than two additional general education courses along with courses required for their particular major. Those whose cumulative grade point average at time of receiving their associate's degree is an 3.00 in an approved program will be eligible for a one-third tuition reduction in the day division as long as they enroll within one year of graduation. For more information, please refer to <http://www.mass.edu/masstransfer/home.asp>.

*Note: Not all majors are available through this program. Students who have previously been matriculated at Framingham State University are not eligible.*

## **MASSACHUSETTS STATE COLLEGE AND COMMUNITY COLLEGE ELEMENTARY AND EARLY CHILDHOOD EDUCATION COMPACTS**

A student shall be eligible for admission to Framingham State University under the **Early Childhood Education Compact** by meeting all of the following conditions:

- Completion of an associate degree at a Massachusetts community college with a minimum of 60 semester hours exclusive of developmental coursework;
- A minimum cumulative grade point average of not less than 2.75 (in a 4.00 system);
- Completion of the designated core curriculum comprised of 45 to 60 semester hours;
- A passing score on the Communication and Literacy Skills Test (CLST) of the Massachusetts Tests for Educator Licensure (MTEL). (Verification of a passing score must be received by Framingham State University prior to enrollment in the Early Childhood Major.)

A student shall be eligible for admission to Framingham State University under the **Elementary Education Compact** by meeting all of the following conditions:

- Completion of an associate degree at a Massachusetts community college with a minimum of 60 semester hours exclusive of developmental coursework;
- A minimum cumulative grade point average of not less than 2.75 (in a 4.0 system);
- Completion of the designated core curriculum comprised of 44 to 59 semester hours;
- A passing score on the Communication and Literacy Skills Test (CLST) of the Massachusetts Tests for Educator Licensure (MTEL). (Verification of a passing score must be received by Framingham State University prior to enrollment in the Elementary Education Major.)

*Please visit the Massachusetts Department of Higher Education website, [www.mass.edu](http://www.mass.edu), for additional information about the Elementary Education Compact.*

## **Nursing Education Transfer Compact (NETP)**

For Registered Nurses who graduated from public Associate Degree in Nursing Programs in Massachusetts, the NETP includes:

- Acceptance in transfer all courses earned as part of a Board of Registration in Nursing (BORN) approved public Associate Degree in Nursing (ADN) program, without time restriction\*, as a body of knowledge and practical experience that is a prerequisite to National Council Licensure Examination (NCLEX) licensure.

Transfer credit evaluations are completed by the Office of the University Registrar. Registered Nurses may receive credit for nursing and non-nursing college-level courses successfully completed at other regionally-accredited higher education institutions.

- As per the Nursing Education Transfer Policy (NETP), nursing students who attended a Massachusetts state community college and have completed the MassTransfer Block (General Education), as indicated as such on the community college transcript, may be required to complete no more than two additional courses at FSU to satisfy FSU's Domain General Education model. A nursing student who has previously completed a bachelor's degree from a regional-accredited institution in the United States will have FSU's Domain General Education model as completed.

Students who do not meet the General Education requirements through the Mass Transfer Block (General Education) must meet the University's Domain General Education Requirements. See the Framingham State University Undergraduate Catalog for details.

\*Exceptions to this policy may be applied by FSU for specific courses, i.e. sciences.

## INTERNATIONAL STUDENT ADMISSION

Framingham State University welcomes applications for full-time undergraduate study from international students. An International Student Information Packet may be requested from the Office of Undergraduate Admissions or may be downloaded from the Framingham State University website, [www.framingham.edu/admissions](http://www.framingham.edu/admissions). The following steps must be completed before an admissions decision can be made:

1. **APPLICATION FORM & FILING DEADLINES:** International students applying for the fall semester (September entrance) are required to complete the entire admissions application process by February 15<sup>th</sup>. Applications from international students studying and/or residing abroad are considered only for entrance in the fall semester. However, international students who have been enrolled in a college or university for at least two full semesters in the United States may apply for the spring semester (January entrance) but must complete the entire admissions application process by December 1<sup>st</sup>.
2. **TRANSCRIPTS:** All official transcripts from secondary schools and colleges must be sent directly to the Office of Undergraduate Admissions. A certified course-by-course evaluation of foreign credentials must be provided by all transfer applicants and any freshman applicants who have taken university-level work outside of the United States at a university.

Students may also be eligible for college credit who have completed Arbitur examinations at the secondary school level, International Baccalaureate (IB) courses, General Certificate of Education (GEC) Advance Level (i.e. "A" level courses in some countries), or Advanced Placement (AP). The certified evaluation must be in English and include grade and/or score and recommended credit hour equivalents for each course.

If you have attended more than one university or college, official transcripts and certified course-by-course evaluations from each institution must be forwarded to the Office of Undergraduate Admissions by the appropriate deadline.

3. **REQUIRED EXAMINATIONS:**
  - A. **SAT or ACT.** Submit official test results from the College Board or ACT. The College Board code number for Framingham State University is 3519. The ACT code number for Framingham State University is 1904. Transfer applicants who have successfully completed at least six (6) semester hours of both college-level English composition and college-level mathematics and have a total of at least 24 credit hours from an American college or university may be exempted from the SAT requirement as well as students who graduated from high school prior to 2012.
  - B. **TOEFL (Test of English as a Foreign Language).** Students whose native language is not English must take the TOEFL. Those students whose native language or schooling is in English or students who have completed at least six (6) credit hours of college-level English composition at an American college or university will be exempted from these examinations. (Information on the SAT and the TOEFL

examinations may be obtained by visiting [www.ets.org](http://www.ets.org).)

4. **CERTIFICATION OF FINANCES:** Since the University is not able to provide any financial aid to international students, a Certification of Finances form and supporting documentation must be submitted. This form will be forwarded upon receipt of the application or may be downloaded from the International Applicants section of the FSU website.

*NOTE: All students who are not permanent residents or citizens of the United States are required to pay out-of-state tuition. Framingham State University is authorized under Federal law to enroll non-immigrant alien students. Individuals approved for "Deferred Action for Childhood Arrivals" (DACA) may be eligible for in-state tuition.*

### **ART PORTFOLIO REQUIREMENTS**

All prospective students for the studio art major regardless of concentration are required to submit a portfolio, which will be reviewed by the faculty. Applicants for admission into the major must attend one of the scheduled portfolio reviews on campus.

The portfolio review is an opportunity for potential students to meet individually with representatives of the faculty and discuss their work, ambitions and interest in the major. These informal interviews occur during the review while the other candidates are executing an assigned drawing for consideration in assessing the student's ability and preparation for the major. Each participant will meet with two faculty members for 15-20 minutes. The remainder of the time is allocated for the completion of the assigned drawing.

Your portfolio should contain 10-15 examples of your student work:

- created from direct observation;
- using a variety of media, techniques, subject matter and scale;
- at least one self-portrait and one still-life;
- may also contain sketchbooks, graphic design work and experimental pieces.

Your portfolio should *not* contain:

- reproductions and photographs, only work from life, with the exception of photographs documenting three-dimensional work.



# Student Accounts

## TUITION AND FEES

Annual Day Division Costs:

### Undergraduate Tuition\*

In-State Tuition (residents of Massachusetts)	\$162 per Course-credit
New England Regional Tuition (NEBHE)	\$243 per Course-credit
Out-of-State Tuition (non-residents)	\$1,175 per Course-credit
International (F-1 Student Visa)	\$1,175 per Course-credit

### Graduate Tuition\*

In-State Tuition (residents of Massachusetts)	\$280 per Course-credit
New England Regional Tuition (NEBHE)	\$419 per Course-credit
Out-of-State Tuition (non-residents)	\$1,175 per Course-credit
Out-of-State Tuition (non-residents)	\$1,175 per Course-credit

*\*Students enrolled for more than three course-credits will not be charged additional tuition.*

### Fees

University Services Fees*	\$1,364 per Course-credit
Library Fee	\$50 per Term
Health Center Fee	\$42.50 per Term
Graduation Fee	\$100 One-time occurrence
ID Replacement Fee	\$20 per occurrence
Senior Citizen Audit Fee	\$160 per Course-credit

*\*Students enrolled for more than three course-credits will have University Services Fees capped at \$4,092.50 per semester.*

Residence Halls (Varies based on Hall & Room plus Damage Deposit Required) \$7,580.00- \$9,580.00

Meal Plans (Board) – Both Resident & Commuter Student options available \$800.00 - \$3900.00

Day Division students are billed on a fall or spring term basis. To view the Fall 2016 (201690) Term charges in detail, go to Student Accounts on [www.framingham.edu](http://www.framingham.edu) and select the link to “Day Division All About Tuition and Fees”. All charges listed within the document refer to one term unless noted otherwise. For fall terms, students are issued eBills in early July with payment due before the end of July. Students may view and pay their fall term bill through [www.my.Framingham.edu](http://www.my.Framingham.edu), the University’s portal. For the Spring term, students are issued eBills in the third week of November with payment due the first week of December. An email notification is sent each time a new eBill is available. The information for the Spring 2017 (201720) Term will be available on the Student Accounts web pages at the same time billing occurs. Note: The schedule of fees, tuition, methods of payment, and refund policies are those in effect at the time of publication. They are subject to change without notice.

Students taking three or more Day Division course-credits (including MATH 095 General Mathematics) will be considered as full-time students and must pay all charges and fulfill all responsibilities as full-time students. If a student enrolls in one or two Day Division course-credits, they will be classified as part-time students, subject to all part-time charges and regulations. The exception to this is with regard to Health Insurance. Any student enrolled in three (3) or more course-credits at the University (Day or Evening (Department of Graduate and Continuing Education (DGCE)) Divisions or a combination of both) will be charged for annual health insurance coverage. Please see below for additional information regarding waiving/enrolling coverage. In accordance with Board of Higher Education Policy No. FAAP 97-28, students may be subject to additional tuition charges per course credit if taking thirty-eight or more state-supported course credits at Framingham State University. Senior citizens are charged \$160.00 per course-credit for auditing Day Division courses.

Master's Candidates as well as Post Back Teacher Licensure (PBTL) students are charged the Graduate Tuition rate for courses taken through the Day Division. Please refer to the "Day Division All About Tuition and Fees" for a listing of the charges associated with full- or part-time status.

**PAYMENTS:** All charges must be paid at the beginning of each term. No student will be officially enrolled in the University or the residence halls unless all charges are satisfied. All students, regardless of their account balance and, by the due date of the student bill, are required to notify the University of their intent to attend that term. Failure to do so may result in loss of classes, residence hall reservation, and parking assignment. In addition, a \$50.00 late fee may be charged. All full-time students must waive or enroll online in the health insurance offered by the University. Payments may be made online, in-person, or through the mail. The University accepts cash, checks, MasterCard, Visa, American Express, and Discover. Please note that you may not pay by credit card through the mail because of credit card regulations. Please print your 9 digit FSU Student ID # on all checks. A \$25.00 fee will be charged for a check returned unpaid by the bank. Do not send cash through the mail.

For all new students, there is a \$50.00 non-refundable tuition deposit. Such deposit shall be credited to the student's first term tuition charge.

There is a \$150.00 non-refundable deposit for all residence hall students, both freshmen and transfers, payable at the time of admission. Continuing students pay at the time of room selection. The deposit shall be credited to the spring term residence hall charge. Students who stay one night or longer in a residence hall will not be entitled to a refund. A meal plan must be selected by all residence hall students.

A residence hall damage deposit of \$100.00, is required at the beginning of the first term of residency each year. Refunds are made at the end of each academic year after an assessment for any damages, provided that there is no outstanding balance on the student's account. Commuting students are required to have a parking decal for any vehicle brought to the campus. There is a \$50.00 per term charge for this decal. A \$20.00 fee will be charged for replacement of a student ID card. Residence hall students may apply for resident parking (based on availability) at the cost of \$500.00 annually. A non-refundable and non-transferable deposit of \$100.00 is required in the spring term for the following academic year.

Students who have not satisfied their Student eBill or, if applicable, Health Insurance requirement, will not be issued transcripts, diploma, or be permitted to register for any courses.

**MANDATORY HEALTH INSURANCE:** State law requires all full-time students attending Framingham State University to have health insurance. Students must submit, on-line, the Health Insurance Request for Waiver form or enroll in the insurance plan (full year, \$2,511.00, 08/01/16 to 07/31/17) offered by the University. Submittal of the waiver or insurance enrollment is required in order to be registered at the University. Part-time students are not eligible to purchase the health insurance offered by the University.

**MONTHLY PAYMENT OPTION - TUITION MANAGEMENT SYSTEMS (TMS):** The “Monthly Payment Option” offered through Tuition Management Systems (TMS) enables a student to budget all or part of the Student eBill without interest. The Plan may be used in conjunction with all forms of financial aid such as grants, loans, and scholarships. Monthly payments must be made to TMS by the first of each month.

A student may participate in the Plan by budgeting costs from July 1<sup>st</sup> to November 1<sup>st</sup> for the fall term and from December 1<sup>st</sup> to April 1<sup>st</sup> for the spring term. The enrollment fee for the year is \$55.00. The student may also budget for a single term for an enrollment fee of \$40.00.

To enroll, the student must do so prior to the due date of the Student eBill. To enroll, go to TMS directly at [www.framingham.afford.com](http://www.framingham.afford.com). This will inform the University of the student’s enrollment in the Monthly Payment Plan and the budgeted amount. Questions regarding the Plan should be directed to Tuition Management Systems at 1-800-216-4258. Each term’s budgeted amount is credited to the initial term of the student account. If the student is delinquent in payment to TMS, the University will consider the student account unsatisfied.

**REFUND POLICY:** All refunds will be made by direct deposit to the checking or savings account set up by the student on the eRefund tab in my.Framingham. If a student is withdrawing from the University, the student should so indicate on *myFramingham*. On or after the first day of classes, the student must complete a “Notification of Withdrawal from University” form and submit the completed form to the Office of University Registrar.

If a student withdraws from the University, tuition and fees are refunded on a percentage calculated weekly. Room & board refunds are prorated on a daily basis through 60% of the term. . Excluded from this policy are: the tuition deposit, the residence hall deposit, the resident parking deposit and fee, the returned check fee, the health insurance premium, and any other use or penalty fees that are non-refundable.

Please note that Federal regulations require that students who have received federal financial aid funds will also be eligible to receive the daily percentage of Federal funds , based upon the student’s official date of withdrawal. If the student does not submit a “Notification of Withdrawal” form and the University determines that the student has withdrawn, the student will only be eligible to receive up to 50% of the Federal financial aid funds. The student will be responsible for paying any balance due the University if financial aid funds are reduced.

**IF A STUDENT IS REMAINING AT THE UNIVERSITY BUT WISHES TO:** Change their enrollment status from Full-time course load to Part-time course load, the student should so indicate on *myFramingham*. The student may change their web registration prior to the end of the Course Add/Drop period and complete a “Change of Status” form at the Office of the Registrar on or before the end of the Course Add/Drop period in order to receive any applicable refund.

**WITHDRAW FROM THE RESIDENCE HALL:** the student should so indicate on *myFramingham* for the Fall semester. On or after the first day of classes, there is no refund of residence hall rent for a student who withdraws from the residence hall. The residence hall deposit is non-refundable. A refund of the residence hall damage deposit is made at the end of each academic year after an assessment for any damages. Please note that withdrawal from a residence hall does not automatically withdraw the student from the meal plan. The resident parking fee is non-refundable. The Office of Residence Life, at 508-626-4636, can answer questions regarding housing policies.

**WITHDRAW FROM THE MEAL PLAN:** the student should do so on *myFramingham*. All residence hall students must have a meal plan. On or after the first day of classes, the student must go to the Dining Services Office, located in the McCarthy University Center, and complete a form to withdraw from the meal plan. Absolutely no refunds will be issued without a completed form. The change percentage is prorated on a daily basis through 60% of the term. Any change to a lesser meal plan must be made at the Dining Services Office prior to the end of the Course Add/Drop period.

Additional information regarding tuition, fees, and refunds may be found in the publication "ALL ABOUT TUITION AND FEES" located at [www.framingham.edu/student\\_accounts.htm](http://www.framingham.edu/student_accounts.htm).

**CATEGORICAL TUITION WAIVERS:** Categorical Tuition waivers will be accepted for those who qualify as Massachusetts residents age 60 and over; or as Native Americans; or as Veterans or as members of the Massachusetts National Guard. These waivers must be submitted to and by approved/processed by the Office of the University Registrar prior to the start of the semester or term.

**GRADUATE TUITION WAIVERS:** Graduate Tuition waivers will be accepted for those who are matriculated students in a Master's program or Post-Baccalaureate Teacher's Licensure program and are enrolled in Day Division courses. These waivers must be submitted to and by approved/processed by the Office of the University Registrar prior to the start of the semester or term.

# Financial Aid

The Financial Aid Office at Framingham State University exists in order to assist students and their families in meeting the costs of a college education. Framingham State University participates in a variety of federal, state, institutional, and private financial aid programs.

## General Eligibility Requirements

In order to be eligible for financial aid at Framingham State University, an applicant must be a U.S. citizen or an eligible non-citizen enrolled (or accepted for enrollment) in a degree program at Framingham State University. Additionally, the applicant must be maintaining satisfactory academic progress towards a degree, must be in compliance with the Selective Service Law, must not be in default on any educational loans or owe a refund on any federal grants to any institution, and must have all documents required for a completed financial aid application on file in the Office of Financial Aid.

## How to Apply for Financial Aid

In order to be given priority consideration for financial aid, a Free Application for Federal Student Aid (FAFSA), or a renewal FAFSA, if the student is a current aid recipient, should be filed at [www.fafsa.gov](http://www.fafsa.gov) by March 1<sup>st</sup>. Students must include Framingham State University's FICE (Federal Interagency Committee on Education) school code number, 002185.

Additional documents may be required for students who are selected for verification by the Federal Government. These documents include completing the IRS data retrieval process for parent and student or providing official IRS tax transcripts, a verification worksheet and other documents as requested. Students will be contacted if this information is required.

## Financial Aid Awards

Once financial aid eligibility is determined, a financial aid package is prepared. The package may be a combination of grant, work, and/or loan programs. The following is a list of the most common programs.

Visit our website at [www.framingham.edu/financialaid](http://www.framingham.edu/financialaid) for more information.

## Financial Aid Special Circumstances Appeals

Financial decisions can be appealed if the family situation changes after the financial aid award has been made. Students must complete a Special Circumstances Appeal Request Form available at the Office of Financial Aid or found on the Office's web pages.

Grounds for an appeal may include, but are not limited to: loss of job, loss of other income, death in the family, divorce or separation in the family, or unusually high medical bills. All appeals are handled on an individual basis.

## Grant Programs:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Financial Aid Tuition Waiver
- FSU Grant
- FSU Housing Grant
- FSU Student Fee Grant

- FSU Parking Fines Grant
- MASS Grant
- MASS Part-time Grant

### **Framingham State University Scholarships:**

- |                                |                                   |
|--------------------------------|-----------------------------------|
| · AHANA                        | · Jane Ireson                     |
| · Barbara Thayer Brown         | · Dr. Constance B. Jordan         |
| · Marjorie Morgan Brown        | · Maxine Keats                    |
| · Adelina Acchione Cellucci    | · Marion Leonhard                 |
| · Arthur Chaves                | · Robert J. Lemieux Metrowest     |
| · Class of 1954                | · James Linsley                   |
| · Class of 1956                | · Susan B. Lyman                  |
| · Class of 1993 Leadership     | · Joan Kelleher Martinuzzi        |
| · Dr. Gail E. Cosgrove         | · Christa Corrigan McAuliffe      |
| · Alice Dabrowski              | · Mary McGann                     |
| · Matthew Denice               | · Joseph F. Moynihan              |
| · Dr. Philip M. Doohar         | · Louisa A. Nicholass             |
| · Dr. Arthur M. Doyle          | · Martin F. O'Connor              |
| · Catherine Fuller             | · Ruth Pfeiffer                   |
| · Lucy Marcille Gillis         | · Kenneth J. Preskenis            |
| · Dr. Alice M. Glover          | · Grace Watters Richmond          |
| · Anita M. Goldner Scholarship | · Kathleen Ryan Cominskey Roberts |
| · Sidney & Katherine Goodstein | · Salenius                        |
| · Edith Davenport Griswold     | · Elizabeth Smith                 |
| · Louise Guild                 | · Doris Butler Sutton             |
| · Betsy Harter                 | · Jose B. Tombs                   |
| · Nancy Murphy Hatch           | · War and Peace Class of 1945     |
| · Carmela Hilbert Immigrant    | · Dr. Charles Zapsalis            |
| · Margaret Fenwick Hinchcliffe |                                   |

### **Work Programs:**

- Federal Work Study

### **Student Loans:**

- Massachusetts No Interest Loan
- Federal Perkins Loan
- Federal Direct Subsidized Stafford Loan
- Federal Direct Unsubsidized Stafford Loan

### **Parent Loans:**

- MEFA Loan
- Federal PLUS Loan

*Some programs are subject to the availability of funding.*

The amount of financial aid eligibility that is met depends upon the availability of funds, the number of eligible applicants, the date the FAFSA is filed and the financial aid file is completed. FAFSAs received by March 1<sup>st</sup> will be given priority consideration, while files completed after that date are subject to available funding. A financial aid award letter will be mailed to all students who complete an application for financial aid.

It is the responsibility of the student to notify the Financial Aid Office of all financial assistance received from any other sources. Types of assistance that must be reported include private scholarships, tuition waivers, veteran's benefits, Massachusetts Rehabilitation assistance, etc.

All forms of outside assistance must be taken into account in the financial aid package. Outside assistance received after the awards are made by the Financial Aid Office may cause the financial aid package to be adjusted.

**Payment of Financial Aid Awards**

Financial Aid awarded prior to the due date of the student bill, excluding Federal Work Study, will be posted directly to the student's account.

If more aid is awarded than is required to meet the financial obligation to the University, the student will be refunded this amount and it can be used to meet other educational expenses. Financial aid refunds are not usually available until the mid-point of the term. It is the policy of the Business Office to credit the first money received to the student bill. A student who withdraws from the University during the term may not be eligible for the entire financial aid award. The refund policy of Framingham State University is included with the Student Bill in the All About Tuition and Fees document and can be viewed online.

**Satisfactory Academic Progress Policy**

Federal regulations require Framingham State University to develop and apply a consistent and reasonable standard of academic progress, which must contain elements specified in the regulations. The following standards apply to any student receiving Federal or State financial aid.

**A. Qualitative measures**

Students must maintain a GPA of 2.00 after passing sixteen course-credits.

**B. Quantitative progress**

Students must successfully complete 67% of the course credits attempted after passing sixteen (16) course-credits. Students must successfully complete 50% of the course-credits attempted prior to completing sixteen (16) course-credits. The number of course-credits attempted and earned will be reviewed at the end of each academic year.

**Examples:**

An upperclassman has attempted a total of thirty (30) course-credits and passed eighteen (18) course-credits. The student is not making satisfactory progress because the student is passing at the rate of 60% (18 divided by 30). Since the student has passed 16 or more courses the passing rate must be 67% or higher.

A freshman takes three (3) course-credits in the Fall term and four (4) course-credits in the Spring term. The student withdrew during the Fall term but completed all courses in the Spring. The student is making satisfactory progress because  $4$  (course credits completed) divided by  $7$  (course credits attempted) = 58%. Since the student has not yet completed sixteen courses, the required passing rate is 50%. If this same student had instead withdrawn during the Spring term and passed the Fall term the student would be completing at a rate of 43% (three (3) course-credits completed divided by seven (7) course-credits attempted) and would not be making satisfactory progress.

**C. Additional elements**

**Course Withdrawals:** If a student withdraws from one or more courses before the end of the Course Add/Drop period, the course(s) will not be included in the number of courses attempted. Any courses dropped after the Course Add/Drop period will be included in determining the number of courses attempted.

**Incompletes:** A grade of incomplete (IC) will be included as a course attempted. If the course work is completed and a passing grade is given, the course will then be counted as earned. The time frame to remedy an incomplete grade for satisfactory progress is the same as that for all students.

Repeated courses: Courses taken more than once will count each time as an attempt but only once as earned.

Non-credit courses: Non-credit courses are acceptable as courses attempted and courses earned.

**D. Standards are cumulative**

Satisfactory progress standards are cumulative and include all periods of the student's enrollment, including those for which the student did not receive financial aid.

**E. Appeal process**

Satisfactory progress standards may be waived in very special circumstances. An appeal, in writing, should be submitted to the Financial Aid Office indicating the reasons why a waiver should be granted. Valid circumstances may include injury to a student, illness of a student, the death of a relative or other. The appeal will be brought to a committee and a decision will be mailed to the student within two (2) weeks of receipt of the letter.

**F. Reinstatement of Financial Aid**

If financial aid is lost because satisfactory progress has not been achieved, the student can re-gain eligibility by:

1. making up or repeating the required courses,
2. transferring the courses back to the Office of the University Registrar, if applicable, and
3. notifying the Financial Aid Office that the courses have been completed.

Although satisfactory progress is monitored once per year, eligibility may be restored at any time throughout the year.



## VETERANS SERVICES

Framingham State University is approved by the Commonwealth of Massachusetts for veterans' benefits, and for the education of veterans, war orphans, and the dependents of 100% disabled veterans. Eligible veterans, other than Chapter 34, have 10 years from the date of separation from active duty to use their educational benefits. Chapter 34 veteran benefits expired January 1, 1990. When filing for benefits at the University, eligible veterans are required to submit a copy of their separation from service (DD214).

The University seeks to provide assistance in obtaining benefits, financial aid, and other services for full and part-time students. Filing the chapter benefits and certification of enrollment must be done through the Office of the Veteran Services, McCarthy Campus Center Room 514.

Notarized copies of form DD2384 are acceptable for submission to the V.A. All other copies, such as birth certificate, marriage certificate, etc., must be notarized originals.

### Categorical Tuition Waiver for Veterans and Active Duty Members

To be eligible for a Categorical Tuition Waiver, a student must:

- Be a permanent legal resident of Massachusetts for at least one year prior to the opening of the academic year;
- Be a United States citizen or eligible noncitizen;
- Be in compliance with applicable Selective Service Registration laws;
- Not be in default of any federal or state student loan or owe a refund on any previously received financial aid;
- Present documentation of categorical tuition waiver eligibility to the appropriate to the Office of the University Registrar;
- Enroll in at least three undergraduate credits per semester in a state-supported undergraduate degree or certificate program; and
- Maintain satisfactory academic progress in accordance with federal and institutional standards.
- Be a member of an eligible category as defined below:

*Veteran:* As provided in M.G.L. Chapter 4, Section 7(43), shall mean: (1) any person whose last discharge or release was under honorable conditions, and who served for not less than 180 days active service; or (2) Any person whose last discharge or release was under honorable conditions and who served in the army, navy, marine corps, coast guard, or air force of the United States, or on full time national guard duty under Titles 10 or 32 of the United States Code or under sections 38, 40 and 41 of chapter 33 for not less than 90 days active service, at least 1 day of which was for wartime service, including: Spanish War, World War I, World War II, Korean, Vietnam, Lebanese peace keeping force, Grenada rescue mission, the Panamanian intervention force, or the Persian Gulf. For purposes of the categorical tuition waivers, "veteran" shall also include any individual who served for not less than ninety days at least one of which was served in theatre for "Operation Restore Hope" and whose last discharge or release was under honorable conditions.

*Armed Forces:* An active member of the Army, Navy, Marine, Air Force or Coast Guard stationed and residing in Massachusetts.

Unlike the G.I. Bill, the Categorical Tuition Waiver does not expire. Assistance can continue as long as the student meets the eligibility criteria.

Specific definitions of "veteran" in each category can be obtained from the Office of the Registrar. Those who are eligible must complete and submit a Certificate of Tuition Waiver Form, along with a copy of their separation from

service (DD214) and proof of Massachusetts residency, prior to the billing deadline. Certificates must be submitted prior to billing each semester. Veterans whose certificates are not on file prior to receiving bills must pay tuition. A refund will be processed upon receipt and approval of the certificate.

### **Massachusetts National Guard Tuition Waiver and Federal Tuition Assistance Program**

The Massachusetts National Guard Education Assistance Program provides a 100% tuition and fee waiver for active members of the Massachusetts Army National Guard attending a state university or community college program. Assistance can continue as long as you are good academic standing and until you have reached 130 semester hours.

To apply, you must request a Certificate of Eligibility (TAGMA Form 621-3) every 30 credits from the Massachusetts National Guard Education Office by calling that office at 508-968-5889.

### **VALOR Act and Academic Credit Evaluation Policy**

As per the Valor Act of 2012 (Massachusetts), undergraduate admissions applicants may submit their military transcript via the American Council on Education (ACE) for consideration of academic credit in accordance with University's policy with transfer credit. Framingham State will also review for consideration of academic credit the DANTES DSST exams. This information needs to be provided during the application process to the University. Questions regarding the possible transferability of military credits should be directed to the Office of the University Registrar by email ([registrarsoffice@framingham.edu](mailto:registrarsoffice@framingham.edu)) or by phone (508-626-4545).

### **Veterans Access, Choice, and Accountability Act of 2014**

The Veterans Access, Choice, and Accountability Act of 2014 (Public Law 113-146) changed the amount of tuition and fee charges which can be reported to the U.S. Department of Veterans Affairs (VA). Effective July 1, 2015, public institutions of higher education must charge qualifying veterans and dependents tuition and fees at the rate for in-state residents. Any institution not meeting this requirement will be disapproved by VA for the Post-9/11 GI Bill and Montgomery GI Bill.

Individuals qualifying for in-state tuition under Public Law 113-146 are:

- A Veteran receiving benefits under the Montgomery GI Bill (Chapter 30) or the Post-9/11 GI Bill (Chapter 33) who lives in the state in which the institution is located (regardless of his/her legal state of residence) and enrolls in the institution within three years of discharge from a period of active duty service of 90 days or more.
- A spouse or child using transferred benefits under the Post-9/11 GI Bill (Chapter 33) who lives in the state in which the institution is located (regardless of his/her legal state of residence) and enrolls in the institution within 3 years of the transferor's discharge from a period of active duty service of 90 days or more.
- A spouse or child using benefits under the Marine Gunnery Sergeant John David Fry Scholarship who lives in the state in which the institution is located (regardless of his/her legal state of residence) and enrolls in the institution within three years of the Servicemember's death in the line of duty following a period of active duty service of 90 days or more.

If the veteran or dependent enrolls within three years after the veteran's discharge, the requirement to charge no more than the in-state tuition rate would apply for the duration the individual remains continuously enrolled at the institution.

# Academic Regulations

## REGISTRATION FOR DAY DIVISION COURSES

Registration in the Day Division for the following term occurs in the fall and spring at approximately mid-semester. Students receive information for registration from the Office of the University Registrar and meet with their Academic Advisors to plan their course selections. After consulting with their advisors, they then register for the succeeding semester. The order of registration proceeds from seniors to freshmen. Note: Students in the Commonwealth Honors Program are permitted to register before all other students.

## CLASS DETERMINATION FOR REGISTRATION

The responsibility for following the appropriate program of the major/concentration, as well as general education courses, to ensure the completion of all course work in the standard four-year sequence rest with the student. To ensure reasonable opportunity for course planning at registration the following levels are followed:

- Completion of fewer than 8 course-credits represents freshman status;
- Successful completion of 8-15 course-credits represents sophomore status;
- Successful completion of 16-23 course-credits represents junior status;
- Successful completion of 24 or more course-credits represents senior status.

## COURSE-CREDIT RESIDENCY REQUIREMENTS

To complete the University residence requirement, a minimum of eight (8) course-credits (32 semester hours) must be taken post-matriculation at the University.

To complete a major requirement, a minimum of five (5) course-credits (20 semester hours) in the major department must be taken post-matriculation at the University.

To complete a minor requirement, a minimum of three (3) course-credits (12 semester hours) in the minor department must be taken post-matriculation at the University.

## COURSE ATTENDANCE

Classroom instruction is a principle component of the educational process. Students and faculty have a mutual responsibility for contributing to the academic environment of the classroom. Consistent class attendance and participation in classroom activities are essential. Students are expected to attend all classes. Students should consult the course outline or syllabus to determine the relationships between attendance, including tardiness, and the goals, objectives, requirements, and grading of each course.

Per federal regulations, students are expected to engage in two (2) hours of study outside of class for each semester hour in class. At FSU, one (1) course-credit equals four (4) semester hours and students would be expected to spend eight (8) hours of study outside of the classroom.

## FIELD TRIP POLICY

Field trips must be approved in writing by the chair of the department to which the faculty member planning the trip belongs before any definite arrangements are made.

No special notice is required if the trip is to be completed during the normal class time. If a trip of longer duration than the normal class time is to be taken, it is the responsibility of the faculty member to publically post notice of any such trip at least two weeks prior to its occurrence.

Participation on the part of the students will be on a voluntary basis when a field trip conflicts with regularly scheduled classes. Before any such field trip, the instructor must advise students that they will not be penalized for non-participation. If more than half of the students in another class are absent because of such a field trip, the instructor in that course may cancel the class.

**ABSENCE BECAUSE OF RELIGIOUS BELIEFS**

“Any student in an educational or vocational training institution, other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study or work requirement on a particular day, shall be excused from any such examination or study or work requirement, and shall be provided with an opportunity to make up such examination, study or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.” (Massachusetts General Laws, Chapter 151C, Section 2B).

**SEMESTER COURSE LOAD**

The normal course workload for each semester for full-time students is four (4) course-credits. MATH 095 General Mathematics, a non-credit course, is considered a course-credit for this purpose.

The minimum academic load for each semester for full-time students is three (3) course credits. MATH 095 General Mathematics, a non-credit course, is considered a course-credit for this purpose. The minimum program required for receipt of maximum educational benefit payment under the Veterans Readjustment Benefits Act of 1966 and for receipt of Social Security benefits as a dependent is three (3) course-credits per semester.

The maximum academic load for each semester for full-time students is five (5) course-credits, which includes courses taken in Continuing Education as well as off-campus. Requirements for taking a fifth course-credit are:

- a. an overall GPA greater than or equal to 2.70;
- b. successful completion of at least 16 course-credits;
- c. at least one semester of four (4) course-credits completed for students who transferred 16 or more course credits;
- d. completion of three of the four (4) previous semesters with four (4) course-credits.

Students must complete the 5<sup>th</sup> Course Request form located in the Office of the University Registrar. Students not meeting the policy requirements and therefore denied permission, may appeal to their major Department Chair prior to the end of the Course Add/Drop period. Department chairs may grant exceptions to the above stipulations in special circumstances.

Courses may not be “split,” that is, all classes in a given course must be taken by the student within the same section unless granted permission by the instructor.

A student may not register for two courses that meet at the same time or overlap start/end times.

In the event that students desire to take a course offered through the Department of Continuing Education (CE) because one of an equivalent type is not available in the Day Division, they may request to change their enrollment status to DGCE in order to take the CE course. If this is done, students must pay the full cost of the CE course in addition to Day Division program charges.

**ADDING OR DROPPING COURSES**

Students may add or drop a semester course (or change sections of a course) without penalty if they do so before the end of the sixth academic day (see semester calendar).

Students may add or drop a quarter course (or change sections of a course) without penalty if they do so before the end of the third academic day (see semester calendar).

By logging onto myFramingham, students may add or drop a course, including changing a section of a course, until the end of the 6<sup>th</sup> academic day of the fall or spring semester. If the course is full or if prerequisites are required, a student may submit a completed override form to the Office of the University Registrar (MC515) before the end of the Course Add/Drop period.

First-Year students enrolling in the University for the Fall semester are required to meet with a CASA advisor should the student want to add or drop a course or change a section of a course. Beginning with the Fall 2008 semester, First-Year students will be provided a schedule of four (4) courses at time of attending June or August First-Year Orientation.

### **WITHDRAWING FROM COURSES**

Students have six (6) academic days (Course Add/Drop period) to withdraw from a course with no academic penalty and no notation on their records. Students who withdraw between the third and ninth week of a regular semester (or for a quarter course, no later than the end of the fourth full week of the quarter) will incur no academic penalty as far as the grade point average is concerned but will have a notation of “W” on their permanent records. No student may withdraw from a course during a regular semester after the ninth week unless there are extraordinary circumstances (such as documented hospitalization or sickness). In such cases, with the concurrence of both the Dean of Students or designee and the course instructor, a “W” grade may be authorized.

Students wishing to withdraw from a course must either:

A. Log onto myFramingham and select the course to drop before the end of the Course Add/Drop period (see semester calendar).

**or**

B. Submit a completed Course Withdrawal form to the Office of the University Registrar no later than the designated Course Withdrawal period deadline (see semester calendar).

Students are not officially withdrawn from courses until the appropriate forms have been completed and have been validated by the Office of the University Registrar. *Note: Non-attendance does not constitute a withdrawal.*

### **DECLARING A MAJOR**

Students are not permitted to register for their junior year without having declared a major except in the case of new transfer students admitted to junior standing as undeclared. These students may delay their declaration of a major for one semester. In either case, extension of undeclared status requires written approval through the office of the Associate Dean of Academic Affairs. Students may not revert to undeclared status once they have reached junior standing.

### **CHANGE OF MAJOR**

If students desire to change majors or change from undeclared status to a major, these procedures must be followed:

1. Obtain a Change of Major form from the Office of the University Registrar.
2. Meet with the chair of the department in which the desired major is housed.
3. When the Change of Major is approved, the chair of the department will assign a new academic advisor on the form for the student.
4. Students then must obtain the former department chair's signature on the Change of Major form. (The department chair for Undeclared students is the Associate Dean of Academic Affairs).
5. Students must return the Change of Major form to the Office of the University Registrar. Failure to do so will result in the student being carried on registration rolls in the wrong major and not being allowed to register for the next semester in the new program.
6. Entering transfer students are obliged to comply with all of the above-stated policies for a change of major.

### **DIRECTED/INDEPENDENT STUDY**

Directed or Independent Studies allow students the opportunity to study an area in greater depth than available in existing course offerings. A Directed or Independent Study may also be offered when a course existing in the University Catalog is not offered during the semesters the student is enrolled at the University. To enroll in a Directed or Independent Study, a student:

1. Must be a matriculated undergraduate student in a declared major (undeclared students are not eligible);
2. Must have a minimum of 16 course-credits completed;
3. Must have an overall Grade Point Average (GPA) of 2.75 and a GPA of 3.00 in the major;
4. May enroll in only one Directed or Independent Study in a given semester;
5. May enroll in no more than three Directed or Independent Studies within undergraduate degree requirements;
6. May be subject to stricter guidelines in the major department. Check appropriate course description for the major in question for additional criteria;
7. May be granted exceptions by department chairs in special circumstances.

## **INTERNSHIP AND PRACTICUM**

A number of departments within the University offer students the opportunity to enroll in an internship or practicum for academic credit. Such experiences provide students, usually in the junior or senior year, the opportunity to undertake a supervised practical experience in their field of study. Normally, an internship or practicum is available only during the fall and spring semesters. Special circumstances may allow a student to undertake an internship or practicum during the summer term.

Students interested in an internship for academic credit should consult with their advisor and/or department internship coordinator before the semester in which they propose to begin an internship. Students who want to take internships must meet departmental internship requirements, as specified in the course description, and submit a written application and/or proposal to the faculty member who will supervise their internship and their department chair for approval. This application and/or proposal must include the following information: the semester or other period of time during which the internship will be undertaken; the name of the agency, company, or organization where the internship will be served; the internship's goal(s) and how it will be structured or organized; and the manner in which the student's performance will be evaluated. Registration for an internship must be completed by the end of the Course Add/Drop period for the semester in which the internship will be served. Students are expected to work a minimum of 120 hours for each course-credit, unless a higher minimum is specified in the course description, given for the internship.

## **TRANSFER COURSES (AFTER MATRICULATION)**

To receive credit for courses taken at other institutions, matriculated students must obtain approval in advance from appropriate department chairs. Retroactive approval will not be given.

Off-Campus Course Approval forms are available in the Office of the University Registrar or on the web at [www.framingham.edu/registrar](http://www.framingham.edu/registrar). Applications for approval of a course should be accompanied by the appropriate catalog description from that institution. After obtaining the appropriate signatures for approval of the course, the student must return the completed form to the Office of the University Registrar. The form will then be reviewed for course credit transferability. Please note: Matriculated undergraduate students may be allowed to transfer up to (3) graduate-level courses taken at Framingham State University or other institutions toward undergraduate degree completion requirements.

Transcripts of these approved courses must be submitted to the Office of the University Registrar within six (6) weeks after the completion of the course. It is the student's responsibility to have official transcripts sent directly by the institution to the Office of the University Registrar.

All approved courses transferred into Framingham State University after matriculation will be awarded Framingham course credit in an amount equal to the cumulative total number of semester hour credits transferred divided by 4 and rounded to the nearest whole number. For example, if students take three 3-credit courses, they will be awarded two (2) Framingham State University course-credits.

Transfer credit is given only for courses in which the student received a grade of C- (1.70) or better. A Pass/Fail grade is not transferable. Courses must extend for at least a three-week period and meet a minimum of forty-five hours. Although credit is awarded for all approved transfer courses, the grades will not be recorded on the student's Framingham State University transcripts nor be counted in computing the grade point average. Coursework taken at FSU prior to matriculation is treated as transfer work and the grades will not be recorded on the student's undergraduate transcript nor be counted in computing the grade point average.

Students may inquire further when seeking approval of courses to be taken at other institutions, and they will be notified of the total number of course-credits they have earned from such courses whenever additional approved courses are transferred.

## GRADING SYSTEM

Framingham State University uses the following marking system:

Grade	Quality Points
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

AU = (Audit-no credit) A student may audit courses with the consent of the instructor. Such course enrollment will be officially reported on the student's transcript pending approval by the instructor, but the student will not receive any credit. An auditor may not participate actively in course work. A special approval form for this status must be obtained from the Office of the University Registrar and returned completed by the end of the fifth academic day.

P/F = (Pass/Fail) Matriculated undergraduate students attending either the Day Division or Continuing Education Division are permitted to take up to two (2) fall or spring courses on a Pass-Fail basis, subject to the following conditions:

1. Only students who have successfully completed 16 course-credits or more are eligible to take a course on a Pass/Fail basis;
2. Only one (1) course may be taken on a Pass/Fail basis in any semester;
3. No course may be taken on a Pass/Fail basis if it is part of the general education requirements, or a major requirement including major-related, or if the course is within the major department;
4. A student may not choose the Pass/Fail option when repeating a course;
5. A student must declare whether a course is Pass/Fail by the last day of the Course Add/Drop period. The student requesting to take a course on a Pass/Fail basis will be notified by the Office of the University Registrar before the end of that business day. If the request is approved, the student may not change status. A student is eligible for Dean's List if one of four courses has P/F status;
6. A Pass grade grants the student course credit but does not count in computing the student's GPA. A Failed grade counts as a course attempted with zero points;
7. At the completion of the course when the grade is turned in by the instructor, the University Registrar will convert the letter grade and record only "P" (Pass) or "F" (Fail) on the permanent academic record. The original letter grade is kept by the University Registrar and may be released only with the written permission of the student;
8. Pass/Fail will be interpreted in accordance with the present grading system. "F"

will be fail and all other grades will be pass.

S/U= (Satisfactory/Unsatisfactory) This grade is used only for student teaching experience. Additional details are available from the Education Department.

W = Withdrawal from a Course. Indicates withdrawal from a semester course in the third through the ninth week of the semester, or for a quarter course, no later than the end of the fourth full week of the quarter. See “Withdrawing from Courses” policy for details.

WX = Withdrawal from the University after the course Add/Drop period but before the end of the ninth week of the semester. The student has officially withdrawn from the University and no longer attends classes. See “Withdrawal from the University” policy for details.

N = (Absent from Final Examination) This is a temporary grade with 0 (zero) quality point value given for a student absent from a final examination for justifiable reasons. The Assistant Dean of Academic Affairs will administer a make-up exam only in those instances where the involved faculty member asserts that the exam was missed for reasons that can be justified. The examination that was missed must be taken within two weeks of the last day of the final exam period, or the grade becomes an “F”, unless a request made by the faculty member to convert the grade to “IC” is submitted to the Office of the University Registrar.

NG = Non-Graded course.

IC = (Incomplete) This is a temporary grade with 0 (zero) quality point value which may be given to a student when the instructor is satisfied that circumstances beyond the student’s control other than absence from the final examination (see N above) prevented the student from completing the required work for the course. (An “IC” will not be given, however, unless 80 percent of the work has been completed.) Student indifference resulting in inability to get work in on time is not reason for giving an “IC”. The “IC” will be changed to any other appropriate grade by the instructor if the course has been fully completed by the end of the first four weeks of the next semester if it is a semester course or by the end of the first two weeks of the next quarter if it is a quarter course. If the work is not completed within the given time, the “IC” will be changed to “F”, unless an extension is granted by the Dean of Students when circumstances warrant.

## GRADE POINT AVERAGE

Only the undergraduate coursework taken post-matriculation at Framingham State University through the Day Division or Continuing Education (including intersession and summer terms) will be used in determining the grade point average (GPA) of any student.

The number of quality points that a student receives in a course is determined by the letter grade (see section on Grading System for explanation of quality points). The grade point average is computed by dividing the total number of quality points by the total number of course-credits attempted at the University, by semester or cumulative total. The grade point average (GPA) for each semester and cumulative is presented in three digits, one before and two after the decimal point.

Framingham State University Department of Continuing Education courses that are appropriate for undergraduate degree completion are posted on students’ matriculated undergraduate permanent records. In the case of suspended/dismissed students, such courses will be evaluated for posting at the time of readmission to the University. Courses that are academically inappropriate for Day Division programs are automatically inhibited and are not calculated in the GPA. Therefore, to receive credit for 600-level courses, students must obtain prior written approval from their major department chairs. Failure to do so will result in denial of course credit toward the degree, as 600-level courses are not automatically applied to the baccalaureate degree.

The determination of grade point average is made at the end of each semester:

1. To remain in good standing, students with 1 - 8 course-credits attempted must earn a cumulative quality point average of 1.70. Students with 9 or more course-credits attempted must maintain a 2.00 cumulative quality point average.



2. Students must have a final overall cumulative quality point average of 2.00 in order to graduate.
3. Effective Fall 2007, completion of a baccalaureate degree at Framingham State University requires that all students achieve a minimum 2.00 quality point average in their major requirements, including major-related courses taken outside of the home department in fulfillment of major requirements as well as University residency requirements.

### **COURSE REPEAT POLICY**

The only courses that may be repeated are courses in which a student receives a grade of “B-” (2.70) or lower. Students who wish to repeat courses in which they received a grade of C, C+, or B-, will not be permitted to enroll in the course until the first day of the semester, dependent upon seat availability. All grades, including those earned in repeated courses, will remain on the academic transcript. Students must bear in mind that the same course has to be repeated and that only the most recent grade, whether higher or lower than the original grade earned, will be the grade calculated in the GPA. Continuing courses in which “F” grades have been received must be repeated successfully before the student may take advanced work except when departmental policy permits otherwise. Only grades from Framingham State University courses can be used to recalculate the GPA when repeating courses and students are reminded that only Framingham State University grades are used in determining the GPA. Transfer coursework does not replace grades earned at the University.

### **MID-TERM WARNINGS**

Major warnings (grade of “F”) and minor warnings (grade of “D”) may be issued to the student at the midpoint of any undergraduate course. These warning grades, if submitted by the course instructor, may be viewed by the student via [my.framingham.edu](http://my.framingham.edu). Warnings may also be issued by the course instructor directly to the student at any time if the student’s work is approaching a less than satisfactory level.

### **EXAMINATIONS**

1. All examinations are to be given within the structure of the University policy regarding academic honesty.
2. Examinations, other than the final examinations, may be scheduled at the discretion of the instructor. It is the responsibility of the student to follow whatever procedures are established and presented in writing to the students by the instructor at the start of each semester for such tests.
3. Final examinations are required in all courses except those that have different requirements as determined by the departments offering the courses. Unless exceptions are approved by the department chair and the Dean of Students or designee, final examinations will be given during regularly scheduled examination periods and the student must take the examinations at the prescribed time.
4. Students who are absent from a final examination should contact the instructor to discuss the reason for the absence. At the discretion of the instructor, one copy of the final examination may be sent to Center for Academic Support and Advising (CASA). The exam will be administered on posted dates.
5. If a student is absent from the final examination, the student may be given a grade of “N” by the instructor. The “N” grade will be changed to any other grade by the instructor if the exam is made up no later than two weeks after the final day of the final examination period. Unless an exception is approved, failure to make up the exam during this time will result in a grade of “F”.
6. Examinations and other graded course materials should be made available to students in a timely fashion. If retained by faculty, they should be kept until the end of the next academic semester and should be made available for students’ review upon request.

**STANDARDS FOR ORAL AND WRITTEN PERFORMANCE**

The University's policy on oral and written performance in courses is:

1. Proper use of English is expected of students in all courses requiring oral and/or written work.
2. Instructors may evaluate students' oral and written work on the basis of the proper use of English, as well as content.
3. Instructors will specify their policies for evaluating the proper use of English in course assignments.
4. Students showing major deficiencies in the use of English may be referred to CASA by the instructor.

**GRADE APPEAL POLICY**

The University recognizes that the instructor has the right to determine course evaluation policies. The instructor's grading policy will be designated in the course syllabus distributed at the beginning of the semester. It is the instructor's responsibility to grade student work in a manner consistent with those procedures published in the syllabus.

The following procedure is employed in the event that students wish to appeal a final grade based on a mechanical error in calculation or if there is reason to believe that the grade was calculated in a manner inconsistent with the course syllabus.

**Level I: Informal**

Within the first month of the semester following the semester of the course in which the final grade is questioned, students will pursue their concerns on the informal level, as designated below. Every effort will be made to resolve the students' concerns informally at Level I.

**Step One: Faculty**

Students make an appointment with faculty to discuss their concerns about the final grade in question. The instructor is the authority in evaluating the quality of student coursework. The basis for a possible appeal is inconsistency with grading procedures specified in the course syllabus. In many cases this meeting with the instructor can be a learning experience that provides an understanding of the way that the grade was derived.

**Step Two: Department Chair**

If the students' concerns are not resolved in the meeting with the instructor, students may proceed to Step Two, Informal and will meet with the chairperson of the department in which the course was offered. The department chair will work to seek a resolution of the grade appeal at the informal level.

**Level II: Formal****Step One: Dean of Students**

If the students' concerns are not resolved through at the informal level, students may appeal the grade, in writing, with the Dean of Students or designee prior to the end of the sixth week in the fall semester for courses taken in the prior spring or summer session, or prior to the end of the sixth week in the spring semester for courses taken in the prior fall or intersession.

Taking into account, in a fair and timely fashion, all matters and considerations related to the dispute, the Dean of Students will determine whether or not the student has a basis for appeal. If the dean decides there is no basis for appeal, the matter will be concluded.

If the Dean decides there is a basis for appeal, the matter will be forwarded with all forms and any other pertinent materials to the chair of the All University Committee (ACC) in a sealed envelope identified only by academic year filed, the grade appeal number, the administrator transmitting the form, and the date.

The Dean of Students or designee notifies the Vice President of Academic Affairs that the appeal has been forwarded to ACC.

**Step Two: Faculty Governance**

The Chair of the All-College Committee logs the appeal and forwards the unopened

envelope to the Chair of the Academic Policies Committee (APC). After consultation with the administrator transmitting the appeal, the Chair of APC appoints an ad hoc grade appeal committee consisting of three (3) faculty members/librarians serving on APC. No Member of the committee may be from the department offering the course whose grade is being appealed, nor from the department of the instructor involved.

### **Step Three - The Ad Hoc Grade Appeal Committee and the Appeal Procedure**

As part of the process, the Ad Hoc Grade Appeal Committee may consult with the student, the instructor, and the chair of the instructor's department. If the Ad Hoc Grade Appeal Committee determines that a change in grade may be warranted, the committee will inform the chair and will consult with the instructor prior to making its recommendation to the Vice President of Academic Affairs. (Note: the instructor will provide the course syllabus and grading procedures. If grading criteria are not stated clearly or are complicated, the instructor should submit the method for calculating the final grade.)

The Ad Hoc Grade Appeal Committee must submit a written recommendation (either that "the Committee supports the grade as originally recorded" or that "the instructor should review the grade in question") in a sealed envelope along with the appeal documentation for the Vice President of Academic Affairs within one month of receipt of the committee charge. The Chair of the Academic Policies Committee receives the sealed envelope from the Ad Hoc Grade Appeal Committee, logs it, and forwards it unopened to the Chair of the All College Committee, who, in turn, forwards it unopened to the Vice President. For administrative reasons, the Ad Hoc Grade Appeal Committee's recommendation must be forwarded to the Vice President of Academic Affairs at least three weeks prior to the end of the academic year.

The Vice President of Academic Affairs will convey the Ad Hoc Grade Appeal Committee's recommendation to the instructor and the student. If the committee recommends that "the instructor should review the grade in question," the Vice President will ask the instructor to review the grade and to inform the Vice-President of the outcome. If the review results in an unchanged grade, the Vice President has the authority to change the grade in such cases where there has been a mechanical error in calculation or if there is reason to believe that the grade has been calculated in a manner inconsistent with the stated grading criteria of the faculty, the department, and the University. The appeal ends at this point.

## **UNIVERSITY POLICY REGARDING ACADEMIC HONESTY**

Integrity is essential to academic life. Consequently, students who enroll at Framingham State University agree to maintain high standards of academic honesty and scholarly practice. They shall be responsible for familiarizing themselves with the published policies and procedures regarding academic honesty. In addition to the required statement, faculty members shall, at their discretion, include in the course syllabus additional statements relating the definition of academic honesty to their courses

Infractions of the Policy on Academic Honesty include, but are not limited to:

1. Plagiarism: claiming as one's own work the published or unpublished literal or paraphrased work of another. It should be recognized that plagiarism is not only academically dishonest but also illegal;
2. Cheating on exams, tests, quizzes, assignments, and papers, including the giving or acceptance of these materials and other sources of information without the permission of the instructor(s);
3. Unauthorized collaboration with other individuals in the preparation of course assignments;
4. Submitting without authorization the same assignment for credit in more than one course;
5. Use of dishonest procedures in computer, laboratory, studio, or field work;
6. Misuse of the University's technical facilities (computer machinery, laboratories, media equipment, etc.), either maliciously or for personal gain;

7. Falsification of forms used to document the academic record and to conduct the academic business of the University.

## **PROCEDURES FOR HANDLING CASES OF ALLEGED INFRACTIONS OF ACADEMIC HONESTY**

Faculty are expected to report each infraction to the Dean of Students for record-keeping purposes. This allows the University to track students who have repeated violations of the Academic Honesty Policy. Once the infraction is reported to the Dean of Students, the faculty member will be informed of whether the infraction is a first, second, or third violation, in order to correctly note this on the infraction form.

In the case of a student's first or second alleged infraction of the academic honesty policy, every effort should be made to resolve the matter directly between the instructor and student. The instructor will confront the student with the allegation of dishonesty and take appropriate action. Appropriate penalties for a first infraction range from re-submission of the work in question to failing the course, as determined by the instructor. Appropriate penalties for a second infraction range from failing the work in question to failing the course. If, however, an instructor feels that the severity of the alleged infraction warrants dismissal from the college prior to the third offense, the instructor may request a hearing, which will be conducted per the process described below.

In the case of the third alleged infraction of the academic honesty policy, the involved instructor will impose the course penalty and forward all evidence and appropriate documentation of the alleged infraction to the Dean of Students, who will convene a hearing body. The hearing body shall consist of the Dean of Students and two faculty members, one from a department other than that of the department of the involved instructor. The Dean shall, in consultation with members of the hearing body, review all of the student's academic honesty infractions (including the current incident) and impose a penalty of dismissal from the University. In unusual circumstances, the hearing body may determine, as a group, that a lesser penalty shall be imposed. Only a penalty of dismissal can be appealed. Such an appeal will be made to the University Provost/Vice President for Academic Affairs within three (3) business days of notification of the penalty.

NOTE: Notification of the alleged infraction must be submitted to the Dean of Students within a week of the infraction. Upon resolution of the infraction, all documentation regarding the academic honesty policy violation will be maintained by the Dean of Students.

## **ELIGIBILITY FOR ATHLETICS**

Students participating in intercollegiate athletics must carry a full-time academic course load throughout the entire semester (minimum of three course-credits) and be in good academic standing. All athletes must pass six (6) course-credits (24 semester hours) during each year of attendance.

In addition, to be eligible for intercollegiate athletics, all student athletes must pass 24 semester hours (6 credit-bearing courses) within one calendar year of enrollment (September 1<sup>st</sup> to September 1<sup>st</sup>, or January 1<sup>st</sup> to January 1<sup>st</sup> if enrolled spring semester). All students must take a minimum of 12 semester hours (3 credit-bearing courses) during their season(s) of competition to be eligible to compete in athletics.

## **ELIGIBILITY FOR STUDENT LEADERSHIP**

To hold any class or student organization office, students must be matriculated undergraduate students enrolled in a minimum of two course-credits per semester, and be in good academic standing.

Eligibility for student participation on the following major governance committees is subject to the Massachusetts State College Association Collective Bargaining Agreement for the Day Division Faculty. The Student Government Association selects all student representatives to serve on governance committees. These students must be matriculated and enroll full-time.

All University Committee – Three (3) student representatives

University Curriculum Committee – Three (3) student (must have junior or senior

standing) representatives

Academic Policies Committee – Three (3) student representatives

Student Affairs Committee – Nine (9) student representatives

## **SEMESTER LEAVE OF ABSENCE - UNDERGRADUATE**

A Leave of Absence (LOA) is a temporary interruption of one's studies at Framingham State University (FSU) for either the Fall or Spring semester of the Academic Year (Intersession and Summer terms are excluded) for which the matriculated undergraduate student does not choose to enroll in classes. A Leave of Absence is related only to the student's continued enrollment at the University and is not recognized by federal regulations.

Students may choose to request a Leave of Absence (LOA) from the university for a period of time not to exceed two consecutive semesters at a time. A student may request up to four (4) Leaves of Absence (LOA) during their enrollment at the University.

Students granted an LOA retain their admitted student status and remain eligible for the following privileges:

- Retain the university requirements in place for their academic programs at the time of their first semester at Framingham State University (FSU);
- FSU student e-mail and myFramingham access;
- Priority and self-registration for the approved semester of return.

Students granted LOA are not considered registered students and as non-enrolled students are not eligible for:

- Financial aid disbursements during the semesters while on LOA. Students on an LOA are reported to lenders and loan service agencies as "not enrolled" and need to contact lenders for information on possible repayment requirements;
- Enrollment verification since they are reported as "not enrolled," which could affect eligibility for health insurance, etc.;
- Use of Campus Facilities, Fitness Center, Computer Labs, Student Health Services, or Whittemore Library access and borrowing privileges;
- Campus Housing during their LOA;
- Participation in varsity or intramural athletics, student clubs or any FSU sponsored activity or organization;

Prior to returning from a Leave of Absence, a student is expected to:

- Meet with their academic advisor;
- Address any outstanding financial obligations to the University;
- Register for courses prior to the start of the semester in which the student is returning;
- Follow the degree requirements as identified in the catalog at the time the student originally matriculated. The academic department chair may authorize an exception.

NOTE: Students who do not return following the approved term for their LOA, or those students who did not apply for LOA, are no longer considered matriculated and need to apply for Re-Admission to the University if they wish to continue their coursework. Re-Admitted students do not retain their original Catalog year program requirements and must follow the most current requirements for the degree and their major.

### **Eligibility Requirements**

To be considered for a Leave of Absence, students must be eligible to register for classes and meet the following criteria:

1. Be a matriculated degree-seeking undergraduate student;
2. Be registered during the semester immediately prior to the beginning of the LOA;
3. Students who are participating in an FSU-sponsored study abroad program need not apply for an LOA; however, students who are participating in a non-FSU-sponsored study abroad program should take advantage of the LOA policy, if eligible;
4. Be eligible to attend the upcoming semester - cannot be on academic suspension at

the end of the semester immediately prior to the beginning of the LOA;

4. Have no hold(s) (e.g., pending disciplinary status, financial, etc.) which would restrict registration. Note: Students with financial holds cannot be given consideration for an LOA.

### Timeline

If a student requests the LOA before the end of the add/drop period, the request must be submitted to the Office of the University Registrar no later than the end of the Course Add/Drop period for the fall or spring semester. The University Registrar makes the final decision to approve or deny a request for an LOA based on the aforementioned criteria.

Students requesting a Leave of Absence after the end of the Course Add/Drop and before the deadline to Withdraw from the University before will need to submit the request to the Dean of Students. The Dean of Students makes the final decision to approve or deny a request for an LOA after consulting with the University Registrar.

Registration information will be sent to the FSU email account and personal email account on file prior to the start of the next registration period and also approximately two weeks prior to the term the student is scheduled to return.

In order to remain active in the program before the Leave expires, the student must enroll in courses for the upcoming semester. The student may request to extend the Personal Leave of Absence for one (1) consecutive semester and must do so before the end of the Course Add/Drop period. Should the student not register once the Leave expires, the student will become Inactive (non-matriculated) at the University and will need to apply for Re-admission in order to resume his/her program of study.

## ACADEMIC STANDING

Academic Standing is the status that a student earns from their educational studies at an institution of higher education. Academic Standing at FSU is calculated at the end of the fall and spring semesters (e.g. intersession and summer terms are excluded). Academic Standing at FSU is noted on the student's permanent academic record for each semester.

### GOOD STANDING

To remain in good academic standing, an undergraduate student must maintain an overall GPA as follows:

<b>Number of Course-Credits Completed</b> (includes transfer course-credit equivalents)	<b>*Minimum GPA</b>
1 - 8	1.70
9 or more	2.00

### ACADEMIC PROBATION

After grades are recorded at the end of each semester, students who have not achieved the minimum cumulative grade point average (GPA) for the number of courses completed are placed on academic probation for the following semester.\* Students must raise their GPA to the required level by the end of this probationary semester or they will be suspended (see Academic Suspension).

As shown below, the minimum GPA required depends on the number of credit-bearing courses the student has completed at Framingham State University with a letter grade other than W, plus the number of transfer courses accepted for credit, if any. Note that transfer courses are included in the total number of courses completed, but the GPA is calculated only on courses taken at the University. Grades for transfer courses are neither posted on the student's transcript nor calculated in the GPA.

<b>Number of Course-Credits Completed</b> (includes transfer course-credit equivalents)	<b>*Minimum GPA</b>
1 - 8	1.70
9 or more	2.00

*\*The University reserves the right to suspend students whose GPA falls below 1.00.*

Students on probation are restricted as follows:

1. Ineligible to carry more than the normal academic load (4 course-credits, includes MATH 095 General Mathematics).

2. Ineligible to hold or run for office in any club, society, or organization officially recognized by the University.
3. Ineligible to serve on University governance committees.
4. Ineligible to participate in intercollegiate athletics.

### **ACADEMIC SUSPENSION/DISMISSAL**

**Suspension:** If, within one (1) semester, a student on academic probation fails to increase the cumulative grade point average (GPA) to the minimum required, the student will be suspended from the University. Students should be aware that new courses completed during the probationary semester will add to the total number of courses, possibly raising the minimum GPA to a higher level (see Academic Probation). Courses that are repeated count only once in the number of course-credits. If a student is suspended from the University, the period of such suspension is one academic semester (fall or spring), during which the student may not enroll in Framingham State University Day Division courses. However, a suspended student may enroll in courses offered through the Framingham State University Department of Continuing Education in the evenings, summers, and intersessions as a non-matriculated student.

**Dismissal:** Students who have been suspended (see Suspension, above) may be readmitted to the University after one semester through the Office of Admissions. A formerly suspended student who, upon readmission, fails to achieve the minimum CGPA within one (1) semester will be dismissed from the University for a period of three (3) years. During the period of dismissal, students may not enroll in Framingham State University Day Division courses, but may enroll in courses offered through the Framingham State University Department of Continuing Education in the evenings, summers, and intersessions as a non-matriculated student.

For either suspension or dismissal, students may petition the Academic Standing Committee for special consideration of reinstatement to continue for another semester. Students who submit a written appeal for reinstatement must also include a written plan of action for improving the level of academic performance. For students not reinstated, academic suspension or dismissal is noted on the student's transcript.

While on suspension or dismissal, a student may improve his/her GPA by retaking Framingham State University courses in which he/she received a grade of "C-" (1.70) or lower through the Framingham State University Division of Continuing Education. The most recent grade for any course repeated in this manner will be posted on the student's transcript and be used in place of the grade of "C-" (1.70) or lower to recalculate the matriculated GPA when the student has been accepted for readmission to Undergraduate Admissions Office.

Suspended or dismissed students may also earn credit for courses taken at other institutions. However, consistent with the University's policy on transfer courses, grades from other institutions are not counted in computing the GPA, and therefore do not constitute a grade repeat. Students taking courses off-campus are therefore advised to enroll only in new courses that have not been previously attempted at Framingham State University.

### **Readmission after Academic Suspension/Dismissal**

1. If a student has been suspended from the University for academic reasons, the student may request readmission after the lapse of one (1) semester. The student must apply for such readmission through the Undergraduate Admissions Office. The decision as to whether or not to readmit the student will be made by the Undergraduate Admissions Committee.
2. A student who is dismissed for academic deficiencies can only apply for readmission after a three-year period. In order to graduate from Undergraduate program, a student must be readmitted to the University by the Undergraduate Admissions Committee at least one (1) semester prior to graduation.
3. Students who have been suspended or dismissed must follow the degree requirements stated in the University Catalog at the time of return.

**SOCIAL SUSPENSION**

Students may also be suspended for social reasons, as outlined in the RAM Student Handbook.

**Readmission after Social Suspension**

1. If a student has been suspended from the University for social reasons, the student may request Readmission - unless previously stated otherwise by the appropriate administrator or board - at the end of the suspension period. The student must send a letter to both the Dean of Students or designee and the Dean of Admissions requesting Readmission. The student may not be considered for Readmission if the Dean of Students or designee determines the social suspension must remain in force for a further length of time.
2. A student who is expelled for social reasons may not apply for Readmission.
3. Students who have been suspended for social reasons must follow the degree requirements stated in the University Catalog at the time of return.

**WITHDRAWAL FROM THE UNIVERSITY**

In the event that a student wishes to withdraw from the University, these procedures must be followed:

1. A Withdrawal from the University form must be obtained from the Office of the Dean of Students and signatures obtained on the form from the following offices, in the order indicated:
  - A. Dean of Students (or designee)
  - B. Student Accounts Office
  - C. Financial Aid Office
  - D. Residence Life (if in residence hall)
  - E. Office of the University Registrar
2. Students officially withdrawing from the University after the Course Add/Drop period and before the deadline of the Course Withdrawal period (prior to the end of the ninth week of the semester; see semester calendar) will receive a notation of "WX" in all courses. If a student chooses to withdraw from the University after the ninth week of the semester, s/he will receive a final grade in all courses. Students with extraordinary circumstances (such as documented hospitalization or sickness) should consult with the Dean of Students.
3. All forms must be returned to the Office of the University Registrar. Note: A student is not officially withdrawn from the University until the appropriate form has been completed and has been validated by the Office of the University Registrar. Non-attendance does not constitute withdrawal from the University.
4. Students should refer to the University's policy on refunds as outlined in the University Expenses section of this catalog.

**Readmission after Withdrawal**

A student who withdraws from the University in good standing without completing baccalaureate studies may return to the University upon request to the Office of Undergraduate Admissions. Students attending the Day or Continuing Education Divisions who do not enroll in the subsequent fall or spring semester are considered inactive. To insure return at the time desired, the student must make such a request to the Office of Undergraduate Admissions before August 1<sup>st</sup> for the fall semester or before December 1<sup>st</sup> for the spring semester. Requests received later than these dates may result in a semester's delay in the return of the student to the University. In determining "good standing", the University will consider academic, social, and financial records of the applicant student. Students who have been withdrawn for more than one (1) semester must follow degree requirements stated in the University Catalog at the time of return. This applies to matriculated undergraduate students attending the Day or Continuing Education Divisions.



## SEMESTER HONORS

### President's List

A matriculated undergraduate student carrying a minimum of three (3) course-credits in a fall or spring term earns a place on the honor roll (published after the end of every fall and spring semester) after earning a GPA of 3.30 or higher for each of three (3) consecutive semesters. The student must maintain this average to remain on the list.

### Dean's List

A matriculated undergraduate student carrying a minimum of three (3) course-credits in a fall or spring term earns a place on this honor roll (published after the end of every fall and spring semester) for each semester in which the student earns a GPA of 3.30 or higher. A student is eligible for Dean's List if one of the four courses has "P/F" status.

### Additional Eligibility Limitations

A student obtaining either an "IC" grade or an extension for an "N" grade is not eligible for the Dean's/President's List.

## GRADUATION

### Degree Application

All students who expect to receive their degree from Framingham State University are required to complete a formal degree application. The University has four (4) graduation dates. Applications are available in the Office of the University Registrar and must be submitted as follows:

September 1 <sup>st</sup>	December graduation
October 1 <sup>st</sup>	January graduation
February 1 <sup>st</sup>	May graduation
May 1 <sup>st</sup>	August graduation

No student's name may appear on the graduation list unless all financial debts to the University have been settled. Conferral of a degree occurs only when the Registrar finalizes the student's academic record and confirms that all degree requirements have been met.

### Commencement Ceremony Participation

For the spring ceremony Undergraduate students must attend a mandatory rehearsal (generally held on the Thursday before Commencement). Participation in the Commencement ceremony does not constitute conferral of the degree. Similarly, inclusion of a student's name on such publications as the Commencement program does not confirm eligibility for the degree. Effective Fall 2007, completion of a Baccalaureate Degree at Framingham State University requires that all students achieve a minimum 2.00 quality point average in their major requirements, including major-related courses taken outside of the home department in fulfillment of major requirements as well as University residency requirements.

Beginning with the Spring 2011 Commencement Ceremony, all students must complete all degree requirements in order to participate in Winter or Spring Commencement ceremonies.

Appeals of this requirement with regards to participation in the Spring Commencement ceremony may be made only on one of the following bases:

1. The student has no more than one (1) course remaining to complete degree requirements, has a minimum grade point average of 2.00, *and* has a highly extenuating, documented circumstance that would support a hardship exception to the requirement.

OR

2. The student has no more than one (1) course remaining to complete degree requirements, has a minimum grade point average of 2.50, *and* can document that this coursework will likely be completed no later than August 31<sup>st</sup> following the spring commencement in which the student wishes to participate.

Students wishing to appeal on one of these bases must do so in writing. The appeal must be accompanied by a printout of the student's degree audit and other

appropriate documentation and submitted to the Vice President for Enrollment and Student Development no later than May 1<sup>st</sup>. Decisions on such appeals will be made within one week of their submittal and are final.

## COMMENCEMENT HONORS

### Latin Honors

The baccalaureate degree is conferred with honors upon a student with a final cumulative grade point average of:

Cum laude	3.25 - 3.59
Magna cum laude	3.60 - 3.79
Summa cum laude	3.80 - 4.00

To be eligible for Latin honors, a student must have completed all degree requirements and must have completed a minimum of 16 course-credits at Framingham State University.

### Class Valedictorian

The valedictorian will be the student who has achieved the highest cumulative grade point average and who has been enrolled as a full-time student for a least four (4) out of the last five (5) semesters attended at Framingham State University. To be eligible for valedictorian, a student must have completed all degree requirements and must have completed a minimum of 16 course-credits at Framingham State University.

## INSTITUTIONAL REVIEW BOARD

The Framingham State University Institutional Review Board (IRB) is responsible for protecting the rights and welfare of human subjects participating in research conducted at FSU. The FSU IRB reviews research in the following three categories:

1. Research that is federally funded;
2. Research for which the sponsoring agency requires federal-level institutional review; and
3. Research that is voluntarily submitted by an applicant(s) for a federal-level institutional review.

It is expected that individuals conducting research associated with the University do so in accordance with the highest ethical and moral standards and accepted practices within their disciplines.

Information about the FSU IRB and IRB-related documents may be accessed at the following <http://www.framingham.edu/>.

## POLICY ON AUTHORSHIP

The following guidelines and best practices serve to set community standards for the valuable intellectual work that students and faculty at Framingham State University do together. As a primarily undergraduate institution that sets teaching and mentoring as a priority, the University holds that faculty and student collaborations are of great importance for our educational mission, and that are recognized and valued as part of the work that faculty do in order to fulfill the spirit and letter of our contract with the institution. Since faculty and student collaborations are happening daily as we engage in projects and inquiry in our classes, together they contribute to creative and analytical projects that are shared with wider audiences—either in conference presentations, peer-reviewed publications, or other forms of publication, including online sharing, shows, and performances.

These proposed guidelines are shared with the understanding that our accomplishments as scholar/teachers in a primarily teaching institution include institutional recognition of and value for the work of mentoring student research through faculty and staff authorship and shared creative and research endeavors.

### Acknowledgement of shared faculty and student work

Discussion about the amount and kind of credit to be given should occur at the start of an association between faculty or staff and students so that expectations are clear and the

faculty or staff member and student can develop a shared understanding of what each person's obligations and recognition will be. It is recognized that these arrangements may change over time and discussion should be re-opened at that time.

#### **Guidelines for acknowledgement of student contributions to faculty work**

Since it is a stated goal of this university to foster faculty-student collaboration and undergraduate research, these guidelines should be read to include rather than exclude students as co-authors of faculty publications. In this context, "publication" refers to papers, presentations and creative activities published in peer-reviewed professional journals, exhibitions, and/or festivals; projects and research presented at professional meetings and symposia; and performances outside the campus community. It does not include publications or exhibits in strictly "undergraduate" journals or shows.

Students should be considered as authors or co-authors when a project is substantially completed by the student, including data collection, analysis, writing of the final report, and executing creative production (e.g. capstone project, independent study, senior thesis), rather than a project for which the student only performs some closely supervised task (e.g. data transcription, routine data collection). In the latter case, students should be acknowledged but not listed as co-authors. If such work is contributed by all or most members of a class, perhaps even over several semesters, the faculty member should acknowledge, for example, the "Fall 2011-Fall 2013 classes in Anatomy and Physiology at Framingham State University."

Frequently, it is necessary to combine the results of several student projects, often over several years, to produce a final product that is worthy of publication. Under these circumstances, the faculty member will need to write the final paper, combining information and analysis from several student projects. The faculty member should be first author of such papers, with the students as co-authors.

#### **Guidelines for acknowledgement of faculty or staff contributions to student work**

Faculty, as teachers and mentors, promote student learning and scholarship. As part of their teaching, faculty members commonly suggest topics for further study and advise students on methodologies that could be used in their course work. Faculty members also routinely assist students in their research/creative work and writing by providing detailed comments and critiques, by proposing alternative ways of communicating an idea, and by editing drafts. This by itself does not necessarily entitle the faculty to co-authorship. However, faculty members have a right to expect to be acknowledged and/or cited for their ideas and assistance. All authors, whether student or faculty members, have an obligation to properly cite works used and to credit ideas suggested to them by others, from both published and unpublished sources (e.g., oral communication).

Authorship credit should be based on intellectual contribution. Editing of a paper alone, does not confer co-authorship on the faculty member or editor. Acknowledgment of this assistance is appropriate. Editing that goes beyond simple correction of grammar, spelling, and punctuation in order to clarify meaning or to introduce new ideas or interpretation does make an intellectual contribution for which co-authorship would be appropriate. The names of the authors should be listed in the order of their relative contributions to the publication (including research design, data acquisition, art/design direction, analysis and preparation of the manuscript, and production of creative projects).

### **PRIVACY RIGHTS OF PARENTS AND STUDENTS**

Parents and students are hereby notified that Framingham State University complies with the provisions of federal laws governing the privacy and disclosure of student information. The University has adopted a policy for assuring this privacy. This policy defines types and locations of educational records, stipulates students' and parents' rights, describes procedures for parents and students to review and inspect educational records, and provides a procedure to file complaints concerning alleged failures by the institution to comply with the federal law. Copies of the institutional policy may be secured from the Dean of Students.

**NONDISCRIMINATION POLICY**

It is the policy of Framingham State University not to discriminate in education or employment on the basis of race, color, religion, creed, sex, sexual orientation, age, disability, veteran status, marital status, or national origin. The University operates under an Equal Opportunity, Diversity, and Affirmative Action Plan, as approved by the Massachusetts Board of Higher Education (BHE) and the University's Board of Trustees, that promotes and maintains a policy of nondiscrimination, equal opportunity, and affirmative action. This plan incorporates by reference, and where applicable, the requirements of Titles VI and VII of the Civil Rights Act of 1964; Title VI of the Civil Rights Act of 1968; Titles I and II of the Civil Rights Act of 1991; Title IX of the Education Amendments of 1972 and its regulations found at 34 C.F.R. part 106; the Equal Pay Act of 1963; 72 1520495\_1 Civil Rights Restoration Act of 1988; Sections 503 and 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act of 1990, as amended; Section 402 of the Vietnam-era Veterans Readjustment Act of 1974, Uniformed Services Employment and Reemployment Rights Act; the Age Discrimination Act of 1975; the Age Discrimination in Employment Act of 1967, as amended; the Family and Medical Leave Act of 1993; the Genetic Information Nondiscrimination Act of 2008; the reauthorized Violence Against Women Act, Pub. Law No. 113-4 (2013); the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act; the Higher Education Act of 1965, as amended; Federal Executive Order 11246 of 1965, as amended by Executive Order 11375 of 1967; Federal Executive Order 12900 of 1994; Federal Executive Order 13145 of 2000; Federal Executive Order 13160 of 2000; Federal Executive Order 13166 of 2000; Massachusetts Civil Rights Act; Massachusetts General Laws Chapters 151B, 151C, and Chapter 149; St.2011, c. 199 (H3810), An Act Relative to Gender Identity; directives of the BHE, the Universities' Boards of Trustees and the Commonwealth; and other applicable local, state and federal constitutions, statutes, regulations and executive orders.

Inquiries or advice concerning discrimination and the application of these policies, laws and regulations may be referred:

Kimberly R. Dexter  
Director of Equal Opportunity, Title IX, and  
ADA Compliance  
*Equal Opportunity Officer*  
*Title II/Section 504 Coordinator*  
Dwight Hall, room 205  
(508) 215-5859  
[kdexter@framingham.edu](mailto:kdexter@framingham.edu)

Inquiries may also be directed to:  
The U.S. Department of Education  
Office for Civil Rights  
33 Arch Street, 9<sup>th</sup> Floor  
Boston, MA 02119-1424  
(617) 289-0111  
Fax (617) 289-0150; TDD (877) 521-2172  
[OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov)

Students may also contact:

David Baldwin  
Associate Dean of Students  
*Equal Opportunity Officer for Students*  
McCarthy Center, suite 504  
(508) 626-4596  
[dbaldwin@framingham.edu](mailto:dbaldwin@framingham.edu)

The University Title IX Coordinator is responsible for the University's compliance with Title IX and the administration of the University's Sexual Violence Policy. Any person with questions or concerns about any form of sexual violence, sexual harassment, gender-based harassment, domestic violence, dating violence and stalking and/or retaliation may also contact:

Kimberly R. Dexter  
Director of Equal Opportunity, Title IX, and  
ADA Compliance  
*University Title IX Coordinator*  
Dwight Hall, room 205  
(508) 215-5859  
[kdexter@framingham.edu](mailto:kdexter@framingham.edu)

Carey Eggen  
Associate Director of Athletics/Senior  
Woman Administrator  
*Title IX Coordinator for Athletics*  
Athletic Center, 2<sup>nd</sup> floor  
(508) 626-4565  
[ceggen@framingham.edu](mailto:ceggen@framingham.edu)

Dr. Melinda Stoops  
Dean of Students  
*Title IX Coordinator for Students*  
McCarthy Center, suite 504  
(508) 626-4596  
[mstoops@framingham.edu](mailto:mstoops@framingham.edu)

Inquiries may also be directed to:  
The U.S. Department of Education  
Office for Civil Rights  
33 Arch Street, 9<sup>th</sup> Floor  
Boston, MA 02119-1424  
(617) 289-0111  
Fax (617) 289-0150; TDD (877) 521-2172  
[OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov)

# Campus Resources

## LOCATED IN THE O'CONNOR HALL

### FIRST-YEAR PROGRAMS

First-Year Programs works with new students and the college community to create an environment conducive to the successful transition of First-Year students. Programs are designed that help acclimate students to the University's academic, social and cultural expectations. This includes assisting students in their academic pursuits, encouraging involvement in campus life and establishing connections between faculty, staff and administrators that will make their experience a positive one. The following services and resources are provided by First-Year Programs:

#### **Orientation**

An orientation program is offered for new First-Year and transfer students prior to the beginning of classes in the fall and spring semesters. The orientation program is designed to provide a comprehensive introduction to the academic, social and cultural dimensions of Framingham State University and to prepare students for a successful first year on campus. Through meetings with faculty, students and administrators, information is presented on academic requirements, registration, student services and campus life. Special orientation activities are offered for the parents/guests of entering students. Information about the orientation program will be mailed to incoming freshmen and transfer students after they have sent their deposit to Admissions indicating their intent to attend the University.

#### **FSU Foundations**

This program is designed to assist the First-Year student's successful transition to the college environment. Students will work with faculty, administrators and Peer Mentors to learn how to be aware of themselves as life-long learners, to be contributing members of the FSU community and develop skills that will assist in their academic success. This course, which actively engages students in and out of the classroom, will be a valuable part of the first year of college as it assists students in learning how to get the most out of their college experience.

#### **First-Year Experience Program (FEP)**

The "FEP" program is hosted on co-ed floors housing First-Year students in Larned Hall and O'Connor Hall. This design allows for bonding with fellow students who are dealing with the many challenges associated with the transition to college and a new environment. Programs are offered to increase knowledge of academic policies, provide information about campus resources, and assist in leadership development. A member of the Office of First Year Programs works closely with members of the floor to provide useful information and timely insight into being successful at Framingham State.

#### **The Common Reading**

Each year a book is selected to be a common reading experience for all incoming First-Year students. Discussions focused on the Common Reading assist students in their transition by helping them understand the new cultural expectations of being a college student, the expected level of work and how that may differ from their experiences in high school. Discussions are led by faculty members and administrators during the summer prior to enrollment as well as in courses that have adopted the book as part of their curricula. Students are expected to have read the selection and be prepared to discuss it when events about it take place.

**Placement Testing**

As required by the Massachusetts State Board of Higher Education, all entering students will be tested in order to ensure proper placement in courses. Students will take tests to determine their abilities in math, writing, reading and if, appropriate, foreign languages. Students may be exempt from each of these tests and place directly into courses based on the following criteria:

**Mathematics:** First-Year students will be exempt from the math placement test if they have met all three of the following specific criteria based on their high school transcript: 2.7 or higher GPA, SAT Math of 460 or higher, and have taken a math course during the senior year of high school. Students who are required to take MATH 123 College Algebra (based on academic major requirements) or higher must take the mathematics placement test, regardless of the aforementioned exemption criteria. Transfer students will be asked to take the math placement test if they are not transferring a math course or have not taken an equivalent course to MATH 095.

*NOTE: Effective Fall 2007: In order to uphold the integrity of the placement testing process and MATH 095 General Mathematics, any student attempting MATH 095 will forfeit the opportunity to retake the math placement test at any future time.*

**Reading:** First-Year students will be exempt from the reading placement test if they have a SAT Critical Reading score of 510 or higher. Transfer students are not required to take the reading test.

**Writing:** First-Year students will be exempt from the writing test if they have a SAT Critical Reading score of 600 or higher. Such students will be eligible to enroll directly into ENGL 110 Expository Writing. Transfer students are asked to take the writing test if they are not transferring in a writing course that is equivalent to ENGL 100 Introduction to College Writing or ENGL 110 Expository Writing.

**Foreign Language:** First-Year students are not asked to take the placement test if they have completed Level IV of a foreign language in high school. Transfer students who have completed Level IV of one language in high school or are transferring in an equivalent foreign language course are not asked to take the foreign language test. However, students who wish to take a foreign language course in French, Spanish, or Chinese should take the appropriate test to ensure enrollment in the appropriate level of that course. These are administered by First-Year Programs during the same time frame as all other placement testing.

Dates and times for the examinations during the academic year will be determined prior the beginning of each semester. Please contact the First-Year Programs Office for reservations.

**ACADEMIC ADVISING**

Each incoming student is assigned a faculty member or professional staff member who serves as the academic advisor. Advisors assist students in relating their interests and abilities to career goals and in developing decision-making skills. They also provide information about University policies, procedures, and requirements, and make referrals to campus support services. Another of the advisor's primary roles is to guide students in designing their academic program, making course selections, and completing degree requirements.

It is recommended that students meet with their faculty advisors during their office hours on a regular basis. Advisees are encouraged to become familiar with the policies and degree requirements published in the University Catalog and to keep records of their course progress. During the pre-registration period, students must meet with their advisors to obtain approval for course selection prior to registering for the following semester. Students should prepare for the advising session by planning a tentative schedule to be discussed with the advisor.

**The Advising Center (TAC)**

The Advising Center is a resource for information on academic programs and support services. Undeclared students, or those who are contemplating a change of major, are especially encouraged to visit the Center. Staff members are available for individual conferences on choosing a major, academic planning in course selection and graduation requirements, and strategies for remaining in good academic standing.

**Program Leading to Undergraduate Success (PLUS)**

The Program Leading to Undergraduate Success (PLUS) addresses the needs of First-Year students who may be first-generation college students or eligible to receive the federal Pell grant as they transition to Framingham State University. The program aims to increase retention and graduation rates of students who are Pell-eligible and/or first-generation First-Year students via community building, peer mentorship, academic success programming, and academic advising. Students may submit applications to become a part of PLUS once they have been accepted to the University or after an enrollment deposit is submitted. For additional information about and application into the program, please visit the PLUS webpage.

**LOCATED IN THE PEIRCE HALL****CENTER FOR ACADEMIC SUCCESS AND ACHIEVEMENT**

The Center for Academic Success and Achievement (CASA) addresses the diverse academic needs and interests of the University community with programs, services, and facilities designed to promote academic achievement. All students at the University are encouraged to make use of the tutorial services, seminars and workshops, resources, and individual study accommodations offered at CASA. In addition, CASA provides academic support for persons with learning disabilities.

*Among the resources offered at CASA are:*

**The Math Center**

The Math Center offers free drop-in tutoring in math to students who need help with the quantitative requirements for any course in which they are enrolled. Workshops and organized study groups are routinely scheduled for math and math-related courses. The Center also offers videotapes and computer-assisted learning modules for student use.

**The Writing Center**

The Writing Center provides free tutoring in writing, drop-in or by appointment, to students seeking assistance with written coursework. Writing workshops, individualized writing skills assessment, and course-specific writing support groups are also featured.

**Other CASA Services**

CASA maintains a computer lab with personal computers linked to the student network, and is a wireless laptop access site. In addition, CASA offers workshops that help students prepare for the Massachusetts teacher tests, retakes of the University's placement tests, and writing and mathematics labs for students enrolled in certain courses.

Limited hours for drop-in tutoring in a variety of subjects is available. Visitors are invited to drop in during the week at CASA, located in South Peirce Hall, between the hours of 9:00 a.m. and 5:00 p.m. During the academic year, CASA is also open in the evenings. Please refer to the CASA webpages for times.

## **STUDENTS WITH DISABILITIES**

Framingham State University, in compliance with the mandates of Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, offers opportunities to all students without regard to disabilities. No qualified person shall, on the basis of his or her disability, be denied the benefit of, or otherwise be subject to discrimination under any of Framingham State University's educational programs, activities, and employment opportunities.

Framingham State University is committed to making such reasonable modifications and accommodations as are necessary to ensure that its programs and activities do not discriminate, or have the effect of discriminating, on the basis of disability. Prior to matriculation, students with disabilities are encouraged to contact the Director of Academic Support, telephone 508-626-4906 to discuss specific accommodations and to request a disability services registration packet that includes the guidelines for documentation.

Students who have documents that support their request for academic and co-curricular support services, such as extended time for tests, note-takers, sign language interpreters, computer transcribers, and textbooks in alternative format, are required to submit their documentation to the Center for Academic Support and Advising (CASA). The file is maintained in the confidential Registry for Students with Disabilities located at CASA. The Director of Academic Support schedules individual conferences with each student to arrange for the appropriate support services. Inquiries regarding academic support should be directed to the Director of Academic Support at 508-626-4906.

The Director of Academic Support works closely with the Coordinator of Disability Services to provide students with reasonable accommodations. There are four TTY's (telecommunications for the deaf) on campus: Admissions Office at 508-626-4500 (V/TTY); Disability Services Office at 508-626-4627 (V/TTY); Public Safety and Police Services at 508-626-4911 or 508-626-4008 (TTY); and Whittemore Library at 508-626-4655 (TTY).

## **LOCATED IN THE ATHLETIC & RECREATION CENTER**

### **ATHLETICS**

Athletics offers a broad intercollegiate (NCAA Division III) and intramural program for men and women throughout the academic year. On an intercollegiate level, for women, Framingham State sponsors field hockey, cross-country, volleyball, soccer, basketball, lacrosse, and softball. For men, the following competitive teams represent Framingham State University: soccer, football, cross-country, hockey, basketball, and baseball. The Athletic Office is located in Room 111 of the Athletic & Recreation Center, phone : 508-626-4614. Visit [www.fsurams.com](http://www.fsurams.com) for more information regarding the teams and schedules.

## **LOCATED IN THE CORINNE HALL TOWERS**

### **RESIDENCE LIFE PROGRAM**

The Office of Residence Life, through programmatic and staff support, strives to facilitate an on-campus community environment fostering student learning, personal development, and valuing diversity. All residents are expected to share the responsibility for creating and maintaining positive living and learning environments. These goals require residents to be open to living cooperatively and working actively to cultivate a climate conducive to academic pursuit and respect for all. Please contact the Office of Residence Life to learn more about on-campus housing and the FSU residence life program.



## **LOCATED IN DWIGHT HALL**

### **INTERNATIONAL STUDENT AND STUDY ABROAD PROGRAMS**

The Office of International Students is responsible for all international student programs and upholding the regulations governing their status as students. The Office provides international students with answers to questions and assists them in addressing and resolving issues and concerns that are unique to their status at the University. Support is provided to these students from the time they are accepted at the University throughout their academic experience. International students receive assistance with the many forms required by the Department of Homeland Security and are kept informed and updated on DHS regulations as they apply to their status as F-1 Visa students. The Office encourages these students to share their culture and customs with other students, faculty, staff, and area schools and organizations.

The Study Abroad Programs Office provides information on a wide variety of enriching opportunities that are available for students who are interested in studying abroad in many countries throughout the world; in obtaining internships in Europe, Australia and New Zealand; or in participating in exchange programs with universities in Quebec and Nova Scotia. The Office helps students explore their options and select appropriate programs to study abroad for a summer, a semester, or a year. The Office has many catalogs and reference books available for students as they select their programs and complete their applications. It provides students with information that facilitates approval of the courses that will ensure transfer credits toward graduation while participating in a study abroad program. Depending on a student's major, study abroad is ideal during the second semester of the sophomore year or during the junior year.

The Office of International Education and Study Abroad Programs Office is located in Dwight Hall, Room 302. Additional information can be obtained by calling 508-626-4585.

## **LOCATED IN FOSTER HALL**

### **THE COUNSELING CENTER**

The Counseling Center enhances learning and personal development through its professional services which include individual, couples, family, and group counseling as well as outreach programs. Staffed by clinical social workers, social work interns, and a psychiatric clinical nurse, the Center assists students in exploring and coping with personal concerns. Confidentiality is assured to the fullest extent of the law. The Counseling Center is located in the Health and Wellness Center in Foster Hall.

### **HEALTH SERVICES**

Health Services functions as a center for the treatment of episodic illness and health maintenance. A staff of nurse practitioners, nurses and consulting physicians provides the management of acute and chronic illness, health education, and preventive medicine. In addition, the department sponsors and coordinates health education programs in cardiopulmonary fitness, weight management, women's health, substance abuse, skin cancer, integrative health, sexual assault and rape prevention.

Every student must submit the Framingham State University medical form. All students prior to class registration must meet the pre-entrance immunization requirements, based on Massachusetts Law No. 5871. The Medical History and Physical Exam portions must be completed in order to utilize Health Services and obtain resident housing. Specific requirements are detailed in the medical forms. The department also coordinates the Student Health Insurance Program.

Questions regarding this state-mandated program may be directed to this office, located in the Health and Wellness Center in Foster Hall. Questions specific to health insurance billing/charges should be directed to Student Accounts, located in Dwight Hall.

## **LOCATED IN THE MCCARTHY CAMPUS CENTER**

### **CAMPUS MINISTRY**

Religious services, educational programs, and volunteer service opportunities are made available through the Campus Ministry office. The office also provides spiritual guidance and counseling for members of the Framingham State University community who are dealing with issues of faith or morality. The Campus Ministry Office is located on the fifth floor of the D. Justin McCarthy Center.

### **CAREER SERVICES**

Career Services offers a wide range of career planning and job search resources. The office provides individual career counseling and many career resources. Students are advised to use the office early and often during their studies.

Some of the office's programming includes career panels, and networking with alumni. Job and internship listings are also available on-line through the Career Services website. Students are strongly encouraged to participate in at least one internship, and many departments offer credit-bearing courses for these experiences. Career counselors are available to assist with career planning, graduate school decisions, and the preparation of resumes and cover letters.

To connect with Career Services, visit the D. Justin McCarthy Center, Room 524, or visit the website at [www.framingham.edu/careerservices](http://www.framingham.edu/careerservices).

### **STUDENT INVOLVEMENT AND CAMPUS EVENTS**

The Office of Student Involvement and Leadership Development coordinates, in conjunction with student clubs and organizations, a full program of social, cultural, recreational, and educational activities. The office emphasizes involving students in the planning process to provide valuable first-hand experience. Several leadership development opportunities are available for beginning to advanced student leaders. Through service and civic engagement programs, students can become actively involved in the local and global community. The Office serves as a resource for information about on- and off-campus activities and is located on the 5th floor of the D. Justin McCarthy Center.

### **FRAMINGHAM STATE UNIVERSITY POLICE DEPARTMENT**

The Framingham State University Police Department is committed to providing protection for the lives and property of the University community. The Campus Police are professionally trained police officers that are licensed as Special State Police and sworn in as Middlesex County Deputy Sheriffs. The Campus Police perform the same duties as your local city or town police departments, conducting all investigations of incidents within their jurisdiction. The Department enforces state statutes, town ordinances and the rules and regulations of the University in an effort to promote a secure and safe campus. Some additional services provided by the department include non-emergency transportation to and from the local emergency room, motor vehicle lockouts, traffic control, court appearances and parking enforcement. The Department also provides personal safety-related programs throughout the year. Any group wishing to have a safety program for their organization, club, or class may contact the Framingham State University Police Department at 508-626-4911.

## **LOCATED IN WHITTEMORE LIBRARY**

### **LIBRARY SERVICES**

The Henry Whittemore Library provides a combination of traditional and modern resources and services to the University's students, faculty, and staff. Local holdings include approximately 206,724 volumes of print materials, 326 periodical titles and 668,330 units of microforms. This basic core of resources supports the curricula of all academic departments of the University and is systematically kept current with new acquisitions as selected by specialized staff and requested by faculty and students.

As a member of the Minuteman Library Network (MLN), the Library's holdings are supplemented by an on-line catalog (OPAC) accessing more than 5.2 million volumes held in the combined collections of 41 regional libraries. Inter-library loan requests may be placed electronically, and shuttle delivery moves 8,000 or more such items to and from the Henry Whittemore Library annually. A similar volume of materials is electronically accessed and requested as needed from among the 600 member libraries of the New England Library Information Network (NELINET) and the 13,000 member libraries of the On-line Computer Library Center (OCLC).

The Library offers access to approximately 50 electronic journal and newspaper databases with over 15,000 titles in full-text. These databases, as well as Internet access, are available within the library and throughout the campus-wide network.

Reference services, basic and course-related library instruction, and point-of-use guidance support effective delivery of computerized resources, while traditional library skills and research methods are taught as integral to the continuously evolving information technology. Electronic databases are also available to off-site students and faculty.

Also administered within the Library are the units of Archives/Special Collections which include historical materials unique to the University, and the Curriculum Library - a large, separate collection of model K-12 materials supporting studies in Education.

### **INFORMATION TECHNOLOGY SERVICES FOR STUDENTS**

Framingham State University provides extensive computing capabilities to its students. The student network consists of a combination of general computer labs, academic/classroom computer labs, and residence hall labs. In addition, Framingham State University's wireless laptop program requires that all incoming freshman, transfer, and re-admit students own their own personal laptop, a requirement that came into effect in the fall of 2002. In total, there are approximately 220 University-owned desktop computers in the various labs on campus for student use. Students living on campus will be able to access the network either via a hard-line or by using wireless capabilities available in every residence hall.

Each student will receive his or her own Framingham State University network account, which will allow students access to the network. It will also provide students with disk space for the storage of academic related files. Every student will also receive a Framingham State University e-mail account, which can be accessed via the Internet. Most computers on campus are PC's (Windows), however, there are a number of Macintosh computers in labs for students enrolled in certain art, communications, and education courses. Many classrooms on campus are equipped with SMART technology, featuring interactive whiteboards, distance learning capability, and other advanced technology.

A wide array of software is available to students in classroom buildings. Among other applications, each workstation in the general and academic computer labs has Microsoft Office Professional, Microsoft Publisher and FrontPage, Internet Explorer, and Adobe Reader. Some machines also have special software such as Derive, SPSS and Minitab statistical research packages. In addition, departmental-specific software is available in departmental labs and on selected workstations in the general and academic computer labs. The primary servers for the student domain run Microsoft Windows Advanced Server. There is also a Unix Server available to students enrolled in Introduction to Unix courses.

The Student Helpdesk is located in Hemenway Hall G17, outside of the general computer lab. Staff members as well as Framingham State University students have been trained to assist their peers with computer-related issues at the Student Helpdesk. The Student Helpdesk is the first place for students to visit when needing any computer or technology related assistance. This desk is also available to provide basic troubleshooting and first-level diagnostic and network support for students' laptops.

Another resource for FSU students is the Laptop Repair Depot located on the lower level of the Arthur Doyle Information Technology Center (adjacent to Whittemore Library). The Laptop Repair Depot is where University-recommended laptops can be serviced and repaired after diagnosis from the Student Helpdesk.

For more information about Information Technology Services, please visit our website at <http://its.frc.mass.edu/>.

## **EDUCATION TECHNOLOGY OFFICE**

The Education Technology Office promotes and supports the “advanced technology” component of the University’s mission. Office staff members administer the University’s Blackboard server for Web-based and Web-enhanced courses, provide planning and support for the academic components of the laptop program, and provide a wide range of professional development workshops in the Leonhard Multimedia Lab. Through a combination of these experiences, the University typically hosts approximately 40 online course sections in Graduate and Continuing Education plus 100 Web-enhanced course sections for campus-based undergraduate courses each term. The offices are located in Hemenway Hall G05 and G09.

### *Additional Educational Opportunities:*

#### **COLLEGE ACADEMIC PROGRAM SHARING (CAPS)**

College Academic Program Sharing (CAPS) is a program for the sharing of academic facilities by the students attending Massachusetts State Universities. Participating colleges include Bridgewater State University, Fitchburg State University, Framingham State University, Massachusetts College of Art, Massachusetts College of Liberal Arts, Salem State University, Westfield State University, and Worcester State University.

The primary purpose of this program is to offer the opportunity to students matriculated at one state university to take up to thirty (30) semester hours of college credit at another state university without going through the formal registration procedures. Interested students must file a request form by June 1<sup>st</sup> for the fall semester and by December 30<sup>th</sup> for the spring semester. NOTE: Priority seating availability is given to matriculated students at the host institution.

For more information, please stop by the Office of the University Registrar, McCarthy Campus Center, CC 515.

#### **THE WASHINGTON CENTER INTERNSHIP PROGRAM**

The Commonwealth of Massachusetts, through the Board of Higher Education, has an agreement with The Washington Center (TWC) to provide scholarship assistance to students who participate in this internship. TWC offers semester and summer opportunities in Washington, D.C. for students to work in a government agency related to their career goals and interests. Students successfully completing the program, which includes 30- to 35-hours per week in an internship in addition to other required classes and the submission of a portfolio, earn three (3) Framingham State University course-credits.

#### **PARTNERSHIP WITH U.S. ARMY SOLDIER SYSTEMS CENTER, NATICK**

In 2000, the University and the Soldier Systems Center, formerly known as Natick Labs, entered a joint venture that promotes collaborative research and shared facilities. Faculty members conduct research at the Center, and students majoring in Biology, Chemistry, Food Science, Fashion Design and Retailing, Food and Nutrition, Psychology, Economics, and Business Administration may enroll in credit-bearing internships at the Center. The Center provides employment opportunities to Framingham State University graduates who attain a B.A. or B.S. with a GPA of 3.50 or higher and who are recommended by the University President.

# Academic Programs

## BACHELOR'S DEGREES

### BACHELOR OF ARTS:

American Sign Language*	Liberal Studies
Art History	Liberal Studies - Interdisciplinary†
Communication Arts	Political Science
Criminology	Psychology
Economics	Sociology
English	Spanish
Environmental Studies & Sustainability	Studio Art
Geography	World Languages
Global Studies	
History	

### BACHELOR OF SCIENCE:

Accounting	Fashion Design & Retailing
Biochemistry	Finance
Biology	Food & Nutrition
Business & Information Technology	Food Science
Chemistry	Management
Computer Science	Marketing
Earth Science	Mathematics
Environmental Science & Policy	Nursing* (R.N.'s only)

### †BACHELOR OF SCIENCE IN EDUCATION:

Early Childhood Education	Elementary Education
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†Students interested in pursuing a Coordinate Major in either Early Childhood or Elementary Education must also declare and successfully complete a primary liberal arts or interdisciplinary major.

\*These programs require students to have completed an associate's degree in the field.

## MAJORS, CONCENTRATIONS, AND MINORS

**Major:** A program of study which cannot exceed 20 course-credits. The faculty prescribes the courses in the major field of study. The courses that constitute the major include all the major courses, required-related courses, and professional education courses.

**Coordinate Major:** A program of study offered by the Education Department leading to Initial Licensure in Elementary Education and Early Childhood Education. Students enrolled in this program major in the Interdisciplinary Major in Liberal Arts and Sciences or in a traditional discipline.

**Concentration:** A focused program of courses within the major. Generally a concentration provides the student with a proficiency or competency in a specialty area within the major field.

**Minor:** A limited specified or unspecified program of courses taken in a different department from the major.

## COURSE RESIDENCY REQUIREMENTS

**Degree:** To complete the University residence requirement, a minimum of eight (8) course-credits (32 semester hours) must be taken post-matriculation at the University.

**Major:** To complete a major requirement, a minimum of five (5) course-credits (20 semester hours) in the major department must be taken post-matriculation at the University. Major residency requirements may be partially fulfilled by courses taken through FSU Study Abroad program. Such cases require approval by the appropriate department chair.

**Minor:** To complete a minor requirement, a minimum of three (3) course-credits (12 semester hours) in the minor department must be taken post-matriculation at the University. Major residency requirements may be partially fulfilled by courses taken through FSU Study Abroad program. Such cases require approval by the appropriate department chair.

## PROGRAMS OF STUDY

Framingham State University offers 34 majors, including several interdisciplinary programs. Major, concentration, and minor requirements for specific disciplines are described in the department sections, which follow. The courses listed in each section are currently being offered within departments and programs. Many introductory courses are offered each semester or yearly; some courses are offered in alternate years. To ensure timely completion of requirements, students are encouraged to consult with their faculty advisor or department chair in planning their sequence of courses.

## AVAILABLE PROGRAMS

<b>Major</b>	<b>Department</b>
<b>Accounting</b> Concentrations in: Accounting - General	<b>Business</b>
<b>American Sign Language/English Interpreting</b> Concentrations in: English Interpreting	<b>World Languages</b>
<b>Art History</b> Concentrations in: General Studies	<b>Art and Music</b>
<b>Biochemistry</b> Concentrations in: ACS Approved Program General Biochemistry	<b>Chemistry and Food Science</b>
<b>Biology</b> Concentrations in: Biology Teaching Biotechnology General Studies Pre-Health Program Wildlife and Environmental Biology	<b>Biology</b>
<b>Business &amp; Information Technology</b> Concentrations in: Business	<b>Business</b>
<b>Chemistry</b> Concentrations in: ACS Approved Program General Chemistry	<b>Chemistry and Food Science</b>

**Note:** Refer to the academic sections of the catalog for program descriptions.

<b>Major</b>	<b>Department</b>
<b>Communication Arts</b> Concentrations in: Communication Studies Integrated Visual Media Organizational & Corporate Communication Theatre	<b>Communication Arts</b>
<b>Computer Science</b> Concentrations in: Computer Science General Computer Science General with Cooperative Experience Information Systems Information Systems with Cooperative Experience	<b>Computer Science</b>
<b>Criminology</b> Concentrations in: General Studies	<b>Sociology</b>
<b>Early Childhood Education</b> (Coordinate Major)	<b>Education</b>
<b>Earth Science</b> Concentrations in: General Studies Earth Science Teaching (Secondary Education)	<b>Physics and Earth Sciences</b>
<b>Economics</b> Concentrations in: Business Economic - General Finance	<b>Economics</b>
<b>Elementary Education</b> (Coordinate Major)	<b>Education</b>
<b>English</b> Concentrations in: Children's & Young Adult Literature Creative Writing English Teaching Film Studies General Studies Journalism Professional Writing Writing	<b>English</b>
<b>Environmental Science and Policy</b> Concentration in: General Studies	<b>Biology &amp; Geography</b>
<b>Environmental Studies and Sustainability</b> Concentration in: General Studies	<b>Geography</b>
<b>Fashion Design and Retailing</b> Concentrations in: Apparel Design Merchandising	<b>Fashion Design and Retailing</b>
<b>Finance</b> Concentrations in: Finance – General Financial Planning	<b>Business</b>

**Note:** Refer to the academic sections of the catalog for program descriptions.





<b>Major</b>	<b>Department</b>
<b>Psychology</b> Concentrations in: General Studies	<b>Psychology and Philosophy</b>
<b>Sociology</b> Concentrations in: General Studies	<b>Sociology</b>
<b>Spanish</b> Concentrations in: General Studies Spanish Teaching (Secondary Education)	<b>World Languages</b>
<b>Studio Art</b> Concentrations in: Art Education (with Education Minor) Ceramics Graphic Design Illustration Painting Printmaking Sculpture	<b>Art and Music</b>
<b>World Languages</b> Concentrations in: French French Teaching (Secondary Education) International Management World Languages	<b>World Languages</b>

**Note:** Refer to the academic sections of the catalog for program descriptions.

## UNDECLARED MAJOR

A candidate for admission to Framingham State University may elect not to declare a major. Students who are admitted as undeclared students are encouraged to view their status as an opportunity to explore a range of fields of interest. Undeclared students must apply for a specific major prior to the onset of the junior year. The Associate Dean of Academic Affairs serves as chair of undeclared students. The Associate Dean's office is located in O'Connor Hall.

Undeclared students are encouraged to visit the Advising Center in O'Connor Hall for help in curriculum planning and exploration of possible majors. In addition, the Career Resource Center in the McCarthy Campus Center sponsors career workshops and offers individual career counseling that is particularly helpful to undeclared students.

## PRE-PROFESSIONAL PROGRAMS

### PRE-HEALTH STUDIES CURRICULUM FOR STUDENTS INTERESTED IN THE HEALTH PROFESSIONS

Advisors: Aline M. Davis, Biology Department  
Sarah Pilkenton, Chemistry & Food Science Department

Individuals interested in careers in the medical health professions should have a minimum of one full year of the following course groups: college biology, introductory chemistry, organic chemistry and physics. To enroll in physics, students must have completed or be enrolled in Calculus I. Majoring in either Biology (Pre-Health) or Chemistry (with Biology minor) fulfills most or all of these course areas.

Many of the required or recommended pre-professional courses are fulfilled through appropriate selections from the General Education program at Framingham State University, including courses in English composition and literature, psychology, and sociology. However, many professional programs require additional courses in biology and biochemistry.

Pre-professional students should meet with one of the pre-professional curriculum advisors no later than their sophomore year and continue to meet periodically. This contact will ensure that students complete the specific requirements for the professional programs to which they intend to submit applications, since each program and institution has varying admissions requirements. Note that particularly strong graduating grade-point averages are required for competitive applications to professional schools.

### **PRE-ENGINEERING**

Advisor: Kristen Chon, Physics and Earth Science Department

This program, in cooperation with the University of Massachusetts-Lowell, University of Massachusetts-Dartmouth, and University of Massachusetts-Amherst, establishes a freshman and sophomore curriculum leading to a Bachelor of Science degree in one of the engineering disciplines. A typical student accepted into this program will study for two years at Framingham State University and complete the program at one of the universities, earning the degree from that institution. Pre-engineering students who complete the program with a "B" average (GPA = 3.00 or better) are guaranteed admission in the engineering program at each university campus. Those students with a "C" average will probably be accepted, but their transfer cannot be guaranteed. Other students may choose to remain at Framingham and complete their program of studies in a major such as biology, chemistry, or computer science. (For further information see Physics and Earth Sciences section.)

### **PRE-LAW**

Advisor: Christopher P. McCarthy-Latimer, Political Science Department

Since law schools do not require or recommend specific undergraduate majors, the University does not offer a prescribed pre-law program, although the Political Science Department offers a minor in law and politics. Students are encouraged to choose a major and courses that emphasize reading, writing, and speaking, as well as analytical skills. Students contemplating a career in law should plan their curriculum under the guidance of both major and pre-law advisors.

### **DEPARTMENTAL HONORS PROGRAM**

This program affords qualified students the opportunity to do extensive study in an area of interest not usually pursued in regular academic work. The completed thesis is recorded on the student's transcript and is placed on permanent file in the library. Distinction for completing the honors thesis is also noted at commencement. Students should consult their department chair to initiate their enrollment in the departmental honors program.

Students are eligible for honors work if they have a grade point average of 3.00 or higher for the entire sophomore year, or for the last semester sophomore year plus the first semester junior year. The 3.00 cumulative grade point average must include a minimum of four (4) course-credits taken at Framingham State University. Students undertaking this program may elect to omit one elective course in the senior year, substituting the final work of this research project for the course omitted. Course substitution must be approved by the student's academic advisor and department chair.

The program is carried on under the direction of a faculty advisor. The choice of the faculty advisor and the actual program of study are matters of mutual agreement between the student and the faculty member. Students may begin work any time after qualifying and must continue for at least two semesters.

## OFFICE OF CONTINUING EDUCATION

Matriculated students enrolling in undergraduate courses offered through Continuing Education may also complete undergraduate programs leading to the baccalaureate degree with majors in: American Sign Language/English Interpreting, Business and Information Technology, Computer Science, English, History, Liberal Studies, Management, Psychology, and Sociology.

## COMMONWEALTH HONORS PROGRAM AT FRAMINGHAM STATE UNIVERSITY

The Commonwealth Honors Program at Framingham State University is designed to provide academically talented students with the opportunity to enrich their college experience with courses both within and outside their major department. Courses bearing the “Honors” designation are drawn from a wide range of disciplines, and are designed to be intensive and intellectually challenging, drawing upon and developing students’ creativity and analytical thinking skills.

Honors courses are designed for a maximum enrollment of 20 students to foster in-depth class discussion and a close student-instructor relationship. Some honors courses are restricted to “honors” participants, while others are offered as “split” courses with a core of honors students working within a larger classroom of students at large. Honors courses may be applied to the general education requirements specified by the University. Honors courses that are split may be taken by students who are not participating in the program on a space available basis in the non-honors section of the course with the permission of the instructor if closed.

### Honors Program Admission Requirements

Freshman Level Admission: Entering freshmen will be invited to participate in the Framingham State University Honors Program based on a weighted composite of their combined SAT scores, class rank, and demonstrated potential for superior work at the college level. Any student admitted to the University who was not initially invited to participate in the program may apply after completing the first semester of freshmen year. A brief statement of intent, an unofficial transcript, and two letters of recommendation from faculty members should be submitted to the Director of the Honors Program.

Sophomore and Transfer Student Admission: Transfer students who have graduated from a Commonwealth Honors Program at a community college are guaranteed admission. Other students may apply for admission to the Framingham State University Honors Program as sophomores. A minimum QPA of 3.25 together with two letters of recommendation from faculty members and a brief statement of intent should be submitted to the Honors Program Director for evaluation before October 1<sup>st</sup> of their sophomore year. All transfer students will meet with the Director to assess their previous course work and current program requirements.

### Honors Program Completion Requirements

Participants in the Framingham State University Honors Program complete a minimum of six (6) course-credits bearing the honors designation, including HNPT 101 First-Year Honors Seminar, and the honors capstone course HNPT 480 Honors Program Thesis/Project. Most honors courses are specially designed sections of regular 100- and 200-level courses which fulfill one or more general education goals and may be used toward the general education requirements. However, students may choose to substitute one upper-division course in their major (300- or 400-level) for one of the four designated honors courses by submitting an honors contract in which the student and instructor devise or enhance a project within the course emphasizing advanced, independent research on a particular subject. Upper-level contract courses do not count toward the general education requirements.

As a condition of continued enrollment in the Honors Program, a freshman or sophomore must maintain a QPA of no less than 3.00 overall; a junior or senior must maintain a GPA of 3.25 or greater. In addition, a minimum grade of B (3.00) in each honors course

(including the thesis) in order to count toward the program requirements. Students falling below these requirements are allowed to continue in the program for a probation period of one semester (juniors and seniors) or one year (freshmen and sophomores). Subsequent continuance is at the discretion of the Honors Program Advisory Council.

In 2011, the Framingham State University Honors program received Commonwealth Honors designation from the Board of Higher Education. Participation in the Framingham State University Honors Program is noted on the students' transcripts. Students successfully completing the program are also designated as Commonwealth Honors Scholars on their academic transcripts.

## MINORS

To complete a minor requirement, a minimum of three (3) course credits (12 semester hours) in the minor department must be taken at the University.

Accounting	History
American Studies	Information Systems
Anthropology	Information Technology
Apparel Design	Journalism
Art	Latin American Studies
Art History	Law and Politics
Biochemistry	Marketing
Biology	Mathematics
Business Administration	Middle School Education
Chemistry	Museum Studies
Chinese	Music
Communication Arts	Neuroscience
Computer Science	Nutrition
Criminology	Philosophy
Diversity Studies	Photography
Earth System Science	Physics
Economics	Political Science
English	Professional Writing
Enterprise Systems	Psychology
Entrepreneurship	Public Administration
Film Production	Science Communication
Film Studies	Secondary Education
Finance	Sociology
Food Science	Spanish
French	Sports Management
Gender Studies	Statistics
Geography	Theatre
Geographic Information Science	Writing

## INTERDEPARTMENTAL MINORS

An Interdepartmental Minor shall consist of a designated number of courses, which must be taken in at least three different subject areas. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

The University offers minors in the following areas:

**AMERICAN STUDIES**

**DIVERSITY STUDIES**

**GENDER STUDIES**

**INFORMATION TECHNOLOGY****LATIN AMERICAN STUDIES****MUSEUM STUDIES****NEUROSCIENCE**

A description and course requirements of each Interdepartmental Minor can be viewed in the Interdisciplinary section of this catalog as well as under the academic departments sponsoring the minor.

**COURSE SUBJECT CODES**

Each course offered at the University has a four-character subject code and a three-digit course number, e.g., ENGL 110.

<b>DEPARTMENT/SUBJECT</b>	<b>SUBJECT CODE</b>
Art -	
Art History	<b>ARTH</b>
Studio Art	<b>ARTS</b>
Biology -	
Biology	<b>BIOL</b>
Neuroscience	<b>NEUR</b>
Business -	
Accounting	<b>ACCT</b>
Business Information Systems	<b>BUIS</b>
Finance	<b>FINA</b>
Management	<b>MGMT</b>
Marketing	<b>MRKT</b>
Quantitative	<b>QUAN</b>
Chemistry and Food Science -	
Chemistry	<b>CHEM</b>
Food Science	<b>FDSC</b>
Communication Arts -	
Communication Arts	<b>COMM</b>
Theatre Studies	<b>THEA</b>
Computer Science -	<b>CSCI</b>
Economics -	
Economics	<b>ECON</b>
Quantitative	<b>QUAN</b>
Education -	
Early Childhood Education	<b>ECED</b>
Education	<b>EDUC</b>
Educational Leadership	<b>EDLE</b>

Elementary Education	<b>ELED</b>
Instructional Technology	<b>INST</b>
Literacy and Language	<b>LTRC</b>
Post Baccalaureate Teacher Licensure	<b>PBTL</b>
Special Education	<b>SPED</b>
English -	<b>ENGL</b>
Food and Nutrition -	
Consumer Science	<b>CONS</b>
Fashion Design	<b>FASH</b>
Nutrition	<b>NUTR</b>
Geography -	<b>GEOG</b>
Geology/Earth Science -	
Earth Science	<b>EASC</b>
Geology	<b>GEOL</b>
Global Studies	<b>GLST</b>
History -	<b>HIST</b>
Interdisciplinary -	<b>INTD</b>
Mathematics -	<b>MATH</b>
Music -	<b>MUSC</b>
Nursing -	<b>NURS</b>
Philosophy -	<b>PHIL</b>
Physics -	
Astronomy	<b>ASTR</b>
Engineering	<b>EGNR</b>
Physical Science	<b>PHSC</b>
Physics	<b>PHYS</b>
Political Science -	<b>POSC</b>
Psychology -	
Neuroscience	<b>NEUR</b>
Psychology	<b>PSYC</b>
Sociology -	
Anthropology	<b>ANTH</b>
Criminology	<b>CRIM</b>
Sociology	<b>SOCI</b>
World Languages -	
American Sign Language	<b>ASGN</b>
Chinese	<b>CHIN</b>
French	<b>FREN</b>

German	<b>GERM</b>
Linguistics	<b>LING</b>
Portuguese	<b>PORT</b>
Russian	<b>RUSS</b>
Spanish	<b>SPAN</b>

## COURSE LEVEL

The numbers following the subject code indicate the course level:

<b>000-099</b>	Non-credit courses;
<b>100-199</b>	Courses that are introductory in nature, assuming no prior college level exposure to the discipline;
<b>200-299</b>	Courses appropriate for students with prior exposure to the university regimen or to the discipline, some with prerequisites;
<b>300-399</b>	Upper level courses that build on previous exposure to the discipline, most with prerequisites;
<b>400-499</b>	Senior level courses, most with prerequisites, including independent studies, internships, seminars, directed studies, and practicum.
<b>600-699</b>	Courses for public service undergraduate credit (not for degree programs – Exceptions may be made by Major Department Chair).
<b>70000-79900</b>	Courses for public service and professional development graduate credit (not for degree programs).
<b>800-899</b>	Courses for graduate program credit but taught as dual level with the appropriate undergraduate course number assigned.
<b>900-999</b>	Courses assigned as graduate program credit only.

## COURSE-CREDIT

With the introduction of the Course-Credit program in 1971-1972, each Course-Credit is equivalent to four (4) semester hours (sixty (60) contact hours) for internal and external transfer use. There is no differentiation made in Course-Credit value between courses that require laboratory or studio work and those that do not. Only courses and Course-Credits accepted for transfer by the University are indicated on the academic transcript.

In Fall 2013, governance approved Half-Course-Credit designation equivalent to two (2) semester hours (thirty (30) contact hours) for courses offered at the University.

Students in all majors must complete a minimum of thirty-two (32) course-credits. At least ten (10) course-credits (depending on the student's major) must satisfy the general education requirements. If the major requirements and the general education requirements total fewer than 32 course-credits, students must take enough free electives to make up the difference.

Professional Development Graduate coursework, 70000-level, will appear as 1.00, .75, .50, or .25 Course-Credits. This relates to four (4), three (3), two (2), and one (1) semester hour(s).



## **COURSE DESCRIPTIONS**

Under each course number and title is a brief description of its content, followed by a statement on prerequisites, if any, explaining the requirements for admission to the course. Courses appropriate for general education are identified by **Gen. Ed. Domain** following the title. Lab science courses will have **Lab** following the title.

## **COURSE PREREQUISITES**

It is the student's responsibility to be aware of and have met prerequisites prior to attempting any course. Course prerequisites may be found in the University Catalog as part of the course description.

## **DEFINITIONS OF COURSE DELIVERY OPTIONS:**

### **Traditional (Face-to-Face, On-Ground, Brick & Mortar) Courses**

Courses taught face-to-face have specific meeting times equivalent to a minimum of 200 minutes per week for lecture along with additional hours for laboratory, if applicable. Although the course is taught in a classroom, a BlackBoard online site is part of each course. Students refer to the BlackBoard course site for the syllabus, posted assignments, grades and other material determined by the instructor to be part of the course.

Web-enhanced Courses - All courses offered at the University have the ability to be web-enhanced due to creating a BlackBoard "course" or shell for each course section. This provides students access to the course syllabus and other course materials, submit assignments, participate in discussions, takes quizzes and exams and access grades and feedback.

### **Hybrid (Blended, Mixed) Courses**

A hybrid (or blended) class is a combination of face-to-face classroom instruction and online instruction. A portion of the instruction is provided online (between 25% and 75%) via BlackBoard, and regular face-to-face instruction is still required. Face-to-face time requirements will vary between hybrid courses and sections. The instructor of a hybrid course typically determines what instructional activities should be online or face-to-face depending on the learning goals, course objectives, content, and available resources. Similarly, the timetable for face-to-face versus online work can be organized in quite different ways that may reflect not only pedagogical criteria but also the particular circumstances of the instructor and students.

### **Online Courses**

As the title indicates, online courses have complete, or most, online instruction via BlackBoard. These courses may include an initial face-to-face orientation session or take proctored exams on campus. Online courses require significant self-motivation and familiarity with technology.

# GENERAL EDUCATION REQUIREMENTS

The general education requirement is intended to provide breadth in the baccalaureate degree program to foster student learning beyond a single, narrow discipline or field. General education is designed to facilitate the increase of knowledge, an appreciation for learning in a broad context, the ability to relate new information to what one has learned previously, the capacity to judge information rather than to simply accept it, and the facility to use what one learns in a realistic and logical manner. In addition, the general education requirement is designed to help students to acquire the following learning objectives:

## Learning Objectives

Overarching Objective: Solve Problems Using Critical Thinking

*(All General Education courses should meet this objective.)*

- 1: Communicate Effectively Orally
- 2: Communicate Effectively in Writing
- 3: Solve Problems Using Quantitative Thinking
- 4: Demonstrate a Critical Understanding of Human Diversity
- 5: Demonstrate Civic Literacy
- 6: Recognize Ethical and Social Responsibilities
- 7: Locate, Evaluate, and Apply Information
- 8: Solve Problems Using Creative Thinking
- 9: Demonstrate Technological Competency
- 10: Work Collaboratively and Independently

To fulfill the general education requirement, students must complete 10 course-credits outside the major department that meet broadly defined requirements. Courses are listed under each of the general education subdomains. Students are not allowed to substitute non-general education courses for general education credit.

At least one course taken in Domain II-B (Natural Sciences) must be a laboratory course. Courses that include a laboratory are identified in the listing.

In conformity with the laws of the Commonwealth of Massachusetts and in consideration of the mission of the State Universities to prepare informed citizens, all students at Framingham State University pursuing teacher licensure must take a course that includes the study of both the United States and Massachusetts constitutions. Courses that include the study of the constitutions are identified in the listing.

Students, transferring from a Massachusetts public institution, who complete the MassTransfer Block (as indicated on the student's final transcript) may be required to complete no more than two (2) Domain GenEd course requirements at Framingham State University. The two (2) specified requirements will be determined case by case per individual.

Found at the end of each department section in this catalog, each course number and title has a brief description of its content, followed by a statement on prerequisites, if any, explaining the requirements for admission to the course. It is the student's responsibility to be aware of and have met prerequisites prior to attempting any course. Courses appropriate for general education are identified by **(Gen. Ed. Domain)** following the course title.

*Note: Students who have withdrawn for more than one semester must follow degree and general education requirements stated in the catalog at the time of their return.*

In all majors, where upon completion of all requirements a degree is awarded, one general education subdomain is considered satisfied through completion of the major program requirements. One exception to this is the major in Liberal Studies, with a concentration in either General Studies or Individualized Studies, where completion of all subdomains is required.

Completing a major in:	Subdomain fulfilled:
Accounting	II-A
Art History	I-B
Biochemistry	II-B
Biology	II-B
Business & Information Technology	II-A
Chemistry	II-B
Communication Arts	I-B
Computer Science	II-A
Criminology	II-A
Earth Science	II-B
Economics	II-A
English	I-B
Environmental Studies and Sustainability	III-C
Environmental Science and Policy	II-B
Fashion Design	III-C
Finance	III-C
Food & Nutrition	II-B
Food Science	II-B
Geography	III-C
History	III-A
Liberal Studies/Interdisciplinary Studies with a Concentration in:	
Geography & Earth Science	III-C
Language Arts	I-B
Natural Science	II-B
Social Sciences	III-A
Management	III-C
Marketing	III-C
Mathematics	II-A
Nursing	II-B
Political Science	III-C
Psychology	III-B
Sociology	II-A
Spanish	I-C
World Languages	I-C
Studio Art	I-A

## DOMAIN GENERAL EDUCATION

### Common Core Requirements Two (2) Course-Credits Required

- A. ENGL 110 Expository Writing
- B. MATH xxx College-Level Mathematics Course  
(*Specific course dependent on math placement scores and major requirements.*)  
Any course used to fulfill this requirement cannot be used to fill any other General Education Requirement. *Note: A 200-level mathematics courses that is not General Education may be used to satisfy this requirement.*

#### Notes about Courses in the Common Core

- **Writing:** The Common Core writing requirement must be completed within the first year of matriculating at the university
- **Math:** The specific core math course students must take will be dependent on math placement scores and major requirements. This requirement must be completed within the first two years of matriculating at the university.

### Domain I Three (3) Course-Credits Required

The study of representations of human experience.

- A. **One (1) course in Creative Arts**  
The study of creative expression through the practice of artistic problem solving.
- |      |     |  |
|------|-----|--|
| ARTS | 110 | Introduction to Drawing                                |
| ARTS | 120 | Introduction to Painting                               |
| ARTS | 167 | Introduction to Studio Art                             |
| ARTS | 234 | Children's Book Illustration                           |
| ARTS | 241 | Ceramics   |
| ARTS | 290 | Study Tour: Art & Architecture                         |
| COMM | 107 | Effective Speaking                                     |
| COMM | 208 | Basic Photography                                      |
| COMM | 212 | Drama Workshop   |
| COMM | 214 | Introduction to Acting                                 |
| COMM | 226 | Writing for Visual Media                               |
| COMM | 262 | Television Studio Production                           |
| COMM | 280 | Introduction to Film Production                        |
| CSCI | 108 | HTML, JavaScript Programming, and Web Site Development |
| CSCI | 140 | Introduction to the Internet, Graphics and Multimedia  |
| ENGL | 282 | Creative Writing                                       |
| INTD | 160 | Image, Sound and Structure                             |
| MUSC | 111 | Introduction to Electroacoustic Music Composition      |
- B. **One (1) course in Humanities**  
The study of artistic, literary, and philosophical works through analysis and interpretation.
- |      |     |  |
|------|-----|--|
| ARTH | 160 | Introduction to the World of Art       |
| ARTH | 273 | Modern Art History                     |
| ARTH | 282 | American Art                           |
| ARTH | 290 | Study Tour: Art & Architecture         |
| CHIN | 118 | Chinese Writing System and Calligraphy |
| COMM | 130 | Introduction to Visual Communication   |
| COMM | 201 | Oral Interpretation of Literature      |
| COMM | 210 | History of Photography                 |

ENGL	111	Reading Literature
ENGL	118	Monsters
ENGL	132	Alternative Pasts
ENGL	150	Rebels and Revolution
ENGL	186	Banned Books
ENGL	201	Mythology and Folklore
ENGL	207	The Language of Film
ENGL	220	Shakespeare
ENGL	232	Irish Literature
ENGL	243	The American Short Story
ENGL	250	Literature and Gender
ENGL	262	American Writers II
HIST	120	American Lives
HIST	123	Beasts, Battles, and Ballads: Life, Literature, and Art in Medieval Europe
MUSC	121	Music Appreciation
MUSC	141	American Musics
MUSC	206	Music of the Twentieth Century
MUSC	235	History of Rock Music
PHIL	101	Invitation to Philosophy
PHIL	118	Introduction to the Philosophy of Science

**C. One (1) Language course**

The study of language in its cultural contexts.

ASGN	101	American Sign Language I
ASGN	102	American Sign Language II
CHIN	101	Elementary Chinese I
CHIN	102	Elementary Chinese II
CHIN	201	Intermediate Chinese I
CHIN	202	Intermediate Chinese II
FREN	101	Elementary French I
FREN	102	Elementary French II
FREN	201	Intermediate French I
FREN	202	Intermediate French II
PORT	101	Elementary Portuguese I
PORT	102	Elementary Portuguese II
RUSS	101	Elementary Russian I
RUSS	102	Elementary Russian II
SPAN	101	Elementary Spanish I
SPAN	102	Elementary Spanish II
SPAN	201	Intermediate Spanish I
SPAN	202	Intermediate Spanish II
SPAN	210	Cinema for Spanish Conversation

**Notes about Courses in this Domain**

- **Language:** Students who have completed Level IV of a high school foreign language or achieve a placement exam score of 1 or higher through the Modern Language Placement test will then be waived from Domain I-C. Students with this waiver must complete another requirement from within Domain I.

## Domain II Three (3) Course-Credits Required

The study of problem-solving, scientific discovery, logical reasoning, and quantitative analysis.

### A. **One (1) course in Analysis, Modeling, and Problem Solving**

The study of analytical, quantitative, and/or formal reasoning methods involving the manipulation of numbers or other symbols to solve problems.

CSCI	120	Introduction to Information Technology
CSCI	130	Introduction to Programming
HIST	200	Quantitative History
MATH	105	Quantitative Reasoning
MATH	107	Business Statistics
MATH	110	College Mathematics I
MATH	117	Introduction to Statistics
MATH	119	Mathematics for the Liberal Arts
MATH	120	College Mathematics II
MATH	123	College Algebra
MATH	157	Probability and Statistics
MATH	200	Precalculus
MATH	217	Business Calculus
MATH	219	Calculus I
MUSC	201	Theory I: Materials of Music
PHIL	103	Introduction to Logic
PHIL	131	Critical Reasoning
QUAN	201	Quantitative Modeling for Business and Economics

### B. **Two (2) courses in Natural Sciences**

**(The two courses must be from two different subject codes; at least one of the courses must be a lab science course)**

The study of classical and modern principles of life and physical sciences, together with a critical appreciation of how scientific knowledge has been constructed, including methods of validating the results of scientific inquiry.

ASTR	123	Practical Astronomy
ASTR	220	The Solar System
ASTR	230	Stars and Galaxies
BIOL	101	Biological Concepts (with Lab)
BIOL	103	Biological Perspectives on Environmental Issues
BIOL	109	Introduction to Biological Science (with Lab)
BIOL	112	Biology of Marine Organisms (with Lab)
BIOL	114	A Human Perspective on Genetics
BIOL	130	Principles of Biology (with Lab)
BIOL	142	Introduction to Human Biology (with Lab)
BIOL	203	Plants and Society
CHEM	101	The Chemistry of Life
CHEM	103	Introductory Chemistry (with Lab)
CHEM	107	Principles of Chemistry (with Lab)
CHEM	108	Principles of Chemistry and Quantitative Analysis (with Lab)
CHEM	131	Science, Environment, and Health (with Lab)
EASC	131	Conversations with the Earth
EASC	241	Introduction to Meteorology
EASC	246	Oceanography
FDSC	151	Principles of Food Science
FDSC	161	Introduction to Food Science and Technology (with Lab)
GEOL	231	Physical Geology (with Lab)

GEOL	232	Historical Geology: The Evolution of Earth and Life Through Deep Time (with Lab)
NUTR	205	Nutrition Science and Applications
PHSC	109	Introduction to Physical Science (with Lab)
PHYS	111	Physics, Nature, and Society (with Lab)
PHYS	201	Introductory Physics (with Lab)
PHYS	211	Principles of Physics I (with Lab)

**Notes about Courses in this Domain**

- The specific Mathematics course used to satisfy the Common Core requirement cannot be used to fulfill Domain II-A.
- Sciences: Students must take two (2) sciences courses, one of which must be a lab science course. The two courses may not have the same subject prefix code.

### **Domain III** **Three (3) Course-Credits Required**

The study of human behavior, cultures, and societies.

**A. One (1) course in Perspectives on the Past**

The study of human behavior, culture, and expression through explorations of the past.

ANTH	172	Interpreting the past: Archeological Perspectives
ANTH	206	Forensic Anthropology
ARTH	270	History of Art I
ARTH	272	History of Art II
ECON	106	American Economic History
ECON	232	Latin American Political Economy
ENGL	209	Film History From 1895-1960
FASH	223	History of Costume
HIST	149	Twentieth Century China
HIST	151	United States History to Reconstruction
HIST	152	United States History since Reconstruction
HIST	153	Europe and the World to circa 1450
HIST	154	Europe and the World since circa 1450
HIST	165	Slavery, Race, and Rights in American History
HIST	176	Atlantic Revolutions
HIST	186	History of Modern Violence
MUSC	205	Music of the Romantic Period
MUSC	209	From Bach to Beethoven
PHIL	201	History of Ancient Philosophy
POSC	206	Constitutional Law: Powers of the Government
POSC	211	Political Theory: Justice, Law, and Order
POSC	213	Political Parties and Interest Groups
POSC	223	Bureaucratic Politics and Power
POSC	270	Race, Politics, and the Law
POSC	272	Gender, Politics, and the Law

**B. One (1) course in Perspectives on the Contemporary World**

The study of human behavior, culture, and expression through explorations of the present.

ANTH	161	Cultural Anthropology
ANTH	243	Native American Cultures
ANTH	253	Gender Across Cultures
ANTH	258	Critical Approaches to Men and Masculinities
COMM	215	Science Communication
CRIM	121	Sociological Perspectives on Criminology
CRIM	201	White Collar Crime

CRIM	211	Crime and Inequality
CRIM	240	Drugs, Social Control and the Law
CRIM	270	Social Deviance
CSCI	135	Information, Technology and Society
ECON	100	Contemporary Economic Problems and Issues
ECON	102	Principles of Microeconomics
ENGL	203	Contemporary Global Literature
GEOG	101	Introduction to Human Geography
GEOG	180	Native American: A Geographic and Legal Perspective
GEOG	211	Cultural Geography
PHIL	105	Introduction to Political and Social Philosophy
POSC	110	Introduction to American Politics
POSC	200	Model United Nations
POSC	213	Political Parties and Interest Groups
POSC	229	Public Policy Analysis
POSC	250	American Legal Systems
PSYC	101	General Psychology
PSYC	200	Psychology of Development
SOCI	101	Introduction to Sociology
SOCI	130	Social Problems
SOCI	212	Sociology of Families
SOCI	218	Women in Society
SOCI	230	Law and Society
SOCI	263	Social Inequality
SOCI	280	Aging in Society
SOCI	282	Society, Technology, and the Future
THEA	101	Introduction to Theatre

**C. One (1) course Global Competency, Ethical Reasoning, and/or Human Diversity**

The study of global systems and issues, ethical principles, and/or differences and commonalities among groups of people. Courses in this group can incorporate any or all of these topics.

ANTH	207	Global Issues in Anthropology
ANTH	290	Non-Western Cultural Studies Tour
ARTH	200	Art and Social Values
ARTH	285	The Art of Asia
ARTH	288	Latin American Art
COMM	202	Global Media
COMM	245	Cultural Aspects of Media Representation
CSCI	138	Information, Technology and the Environment
ECON	101	Principles of Macroeconomics
ECON	105	An Introduction of the United States Economy
ECON	200	The Economics of Globalization
EDUC	222	Sheltered English Immersion
ENGL	124	Literature and Social Justice
ENGL	260	American Ethnic Literature
ENGL	264	African American Literature
FASH	253	Cultural Dress
GEOG	110	World Regional Geography
GEOG	165	Global Cities
GEOG	206	Political Geography
GEOG	222	Geographic Perspectives on Globalization
GEOG	250	Geography of the United States and Canada



GEOG	252	Geography of Europe
GEOG	253	Geography of Russia & the Former Soviet Republic
GEOG	254	Geography of Monsoon Asia
GEOG	255	Geography of Sub-Saharan Africa
GEOG	256	Geography of the Middle East
GEOG	257	Geography of Latin America
GEOG	258	Geography of the British Isles
GEOG	290	Non-Western Regional Geography: Field Study
GEOG	291	Western Regional Geography: Field Study
GLST	101	Introduction to Global Studies
GLST	222	The World on the Move: Migration in a Global Era
HIST	155	Comparative History of World Civilizations
HNRS	101	First Year Student Honors Seminar
LING	110	The Languages of the World
MUSC	151	History and Literature of Jazz
MUSC	171	World Music Cultures
MUSC	212	Music, Dance, and Ritual in the Pacific
MUSC	220	Women in Music
PHIL	102	Introduction to Ethics: Why be Moral?
PHIL	222	Bioethics
POSC	120	Introduction to World Politics
POSC	216	Film and Politics
POSC	220	The Politics of Globalization
POSC	260	Comparative Politics
POSC	262	Public Budgeting & Management
POSC	269	Building Peace After Conflict
SOCI	201	International Field Study in Sociology
SOCI	204	Environmental Sociology
SOCI	220	Sport in Society
SOCI	222	The World on the Move: Migration in a Global Era
SOCI	245	Race and Ethnic Relations
SOCI	288	Immigration in the United States

**Laboratory Courses: All students must take one laboratory science, to be chosen from among the following courses that satisfy General Education Domain II-B.**

ASTR	123	Practical Astronomy
BIOL	101	Biological Concepts
BIOL	109	Introduction to Biological Science
BIOL	112	Biology of Marine Organisms
BIOL	130	Principles of Biology
BIOL	142	Introduction to Human Biology
CHEM	103	Introductory Chemistry
CHEM	107	Principles of Chemistry
CHEM	108	Principles of Chemistry and Quantitative Analysis
CHEM	131	Science, Environment, and Health
FDSC	161	Introduction to Food Science and Technology
GEOL	231	Physical Geology
GEOL	232	Historical Geology: The Evolution of Earth and Life Through Deep Time (with Lab)
PHSC	109	Introduction to Physical Science
PHYS	111	Physics, Nature, and Society
PHYS	201	Introductory Physics
PHYS	211	Principles of Physics I

## GENERAL EDUCATION REQUIREMENTS FOR THE COORDINATED EDUCATION MAJOR IN ELEMENTARY EDUCATION

The Domain General Education courses, with subjects related to the Massachusetts Curriculum Frameworks, are required for students in the Coordinate Major in Elementary Education.

### COMMON CORE:

ENGL	110	Expository Writing
MATH	110	College Mathematics I

### DOMAIN I-A:

INTD	160	Image, Sound & Structure: An Approach to Art and Music
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### DOMAIN I-B:

ENGL	262	American Writers II
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### DOMAIN I-C:

_____		Any Language Course
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### DOMAIN II-A:

MATH	120	College Mathematics II*
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### DOMAIN II-B (2 courses required):

BIOL	101	Biological Concepts
PHSC	109	Introduction to Physical Science**

### DOMAIN III-A:

HIST	151	United States History to Reconstruction
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### DOMAIN III-B:

PSYC	200	Psychology of Development
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### DOMAIN III-C (courses required):

EDUC	222	Sheltered English Immersion
GEOG	110	World Regional Geography

\*NOTE: MATH 120 College Mathematics II is the required mathematics course for all Elementary Coordinate Majors. It is the recommended mathematics course for Early Childhood Coordinate Majors. MATH 120 College Mathematics II satisfies Domain II Subdomain A.

\*\*NOTE: Students choosing the Natural Science specialization must substitute PHYS 201 Introductory Physics for PHSC 109 Introduction to Physical Science to fulfill one of the two course requirements for General Education Domain II, Subdomain B.

## TEACHER LICENSURE STUDY OF THE CONSTITUTIONS REQUIREMENT

All students pursuing teacher licensure must take one course that includes study of both United States and Massachusetts constitutions, to be chosen from among the following courses.

HIST	151	United States History to Reconstruction
HIST	152	United States History since Reconstruction
HIST	165	Slavery, Race, and Rights in American History
HIST	176	Atlantic Revolutions
POSC	110	Introduction to American Politics
POSC	211	Political Theory: Justice, Law, and Order
POSC	250	American Legal Systems

## PLACEMENT TESTING

Based on criteria reviewed at time of admission, incoming First-Year students may need to take placement examinations in writing, mathematics, and reading, which are administered at various points throughout the year. Transfer students will be asked to take the appropriate placement test based on an evaluation of transcripts from previous institutions. Students planning to take a French, Spanish or Chinese course should plan to take a placement examination to determine the appropriate placement in those courses. Information regarding Placement Testing dates and times and test registration may be found at <https://www.framingham.edu/the-fsu-difference/first-year-programs/placement-testing/index.php>.

Contact the Office of First-Year Programs located in O'Connor Hall for reservations.

## PLACEMENT CODE INTERPRETATION

### *Writing Scores:*

#### Code Explanation

- 1.0 May not take a college-level writing course at Framingham State University.
- 2.0 Must complete ENGL 100 Introduction to College Writing before enrolling in ENGL 110 Expository Writing.
- 3.0 May register for ENGL 110 Expository Writing, which meets the University's general education writing requirement. Note: A Reading Code of 3 is also required to register for ENGL 110.
- 4.0 Completed ENGL 100 Introduction to College Writing.
- 5.0 Transfer coursework accepted. May register for ENGL 110 Expository Writing

*Note: First-Year First-Time students cannot drop ENGL 100 Introduction to College Writing or ENGL 110 Expository Writing unless a completed, including signatures, Course Add/Drop form for another section of the same course is presented to the Office of the University Registrar during the first six (6) class days of the semester.*

### *Reading Scores:*

#### Code Explanation

- 1 Indicates student must retest and is not eligible to enroll in ENGL 110 Expository Writing.
- 2 Indicates student may enroll in ENGL 110 Expository Writing if Writing Placement is equal to 3 or higher.
- 3 Indicates student has completed remedial coursework and may enroll in ENGL 110 Expository Writing.
- 4 Indicates two or more credit-bearing courses has been accepted in transfer and student may enroll in ENGL 110 Expository Writing.

### *Mathematic Scores:*

#### Code Explanation

#### **0.0, 1.0**

Indicates student may not take a credit-bearing math course at Framingham State University. Student must first complete MATH 095 General Mathematics or similar remedial course at another college.

#### **0.0, 1.5, 2.0, 2.5**

Indicates student may enroll in non-algebraic math courses: MATH 110 College Mathematics I (for Coordinate majors in Education), MATH 117 Introduction to Statistics, and MATH 119 Math for the Liberal Arts.

**3.0, 3.5**

Indicates remedial coursework equivalent of MATH 095 General Mathematics accepted as transfer coursework and student may take any 100-level math course listed above, as well as MATH 123 College Algebra.

**4.0, 4.5**

Indicates student may take any 100-level math course listed above, as well as MATH 123 College Algebra.

**5.0, 5.5**

Indicates student may enroll in MATH 200 Precalculus or, after consultation with the Mathematics Department, MATH 219 Calculus I; or any 100-level mathematics course appropriate for the student's major discipline.

***World Languages Scores:***Code Explanation

- 0** 1 in the Avant Placement test, must take Elementary I.
- 1** 2 in the Avant Placement test, must take Elementary II if choosing the language option.
- 2** 3 in the Avant Placement test, must take Intermediate I if choosing the language option.
- 3** 4 in the Avant Placement test, must take Intermediate II if choosing the language option.
- 4** 5 or above in the Avant Placement test, must take any 300 level course if choosing the language option.
- 5** Indicates student has completed Level IV of a language in high school.

*Note: Student will be waived from Domain I-C General Education requirement if a placement score of 1 or higher is achieved. Students majoring in English with a placement code of 5 will be waived from the English major requirement of completion of Elementary II level of a language.*

# Art and Music

## Chair: Brian Bishop

Professors: John Anderson, Mary E. (Lisa) Burke,  
Barbara Curtin Milot

Associate Professors: Brian Bishop, Timothy McDonald,  
Erika Schneider, Keri Straka

Assistant Professors: Lindsay Alberts, Christian Gentry,  
Stephanie Grey, Paul Yalowitz

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## Program Accreditation

Framingham State University is an accredited institutional member of the National Association of Schools of Art and Design (NASAD).

## Arthur B. Mazmanian Gallery

The Mazmanian Gallery, coordinated by members of the Art faculty, is located in the McCarthy Center. The Gallery maintains an active schedule exhibiting the work of faculty, students, and recognized artists from the region. The diversity of exhibitions adds to the enrichment of campus life while also extending the University's resources to the community.

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain I-A (Creative Arts) is satisfied through the completion of both Studio Art major and Domain I-B (Humanities) is satisfied through completion of the Art History major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

For information on portfolio/interview sessions, please refer to the Admissions section of this catalog. Students are required to furnish all personal art materials unless otherwise specified.

## ART HISTORY MAJOR (UARH)

### Major Core Requirements:

#### Five (5) core requirements consisting of:

ARTH 270	History of Art I
ARTH 272	History of Art II
ARTH 273	Modern Art History
ARTH 383	Contemporary Art History
ARTH 483	Seminar in the History of Art

#### Eight (8) concentration requirements consisting of:

- Six (6) Art History electives
- Two (2) Art Studio courses

**Foreign Language Requirement:**

Minimum completion of Elementary II for one (1) foreign language required (0-2 courses). The language requirement for the major may be fulfilled in one of several ways:

- Minimum completion of Elementary II of Foreign Language courses.
- FSU Placement test score equivalent to Elementary II of a language.
- Completion of level 4 in a single language in high school.
- Waiver from the Chair of the Department of World Languages if high school academic language is other than English.

*Note: Most graduate programs in Art History require a reading knowledge of German and/or French or Italian. Language study through intermediate level or the addition of a second foreign language is recommended.*

**STUDIO ART MAJOR****Studio Art Major Core Requirements:**

Ten (10) core requirements consisting of:

ARTH 270	History of Art I
ARTH 272	History of Art II
ARTH 273	Modern Art History
ARTS 200	Drawing Fundamentals
ARTS 203	Three-Dimensional Design <b>or</b> ARTS 241 Ceramics <i>(ARTS 203 Three-Dimensional is required of the Art Education Concentration)</i>
ARTS 222	Color and Design
ARTS 230	Digital Tools for Art and Design
ARTS 254	Painting Methods
ARTS 300	Life Drawing <i>(Not required for Concentration in Graphic Design)</i>
ARTS 419	Advanced Drawing Studio <i>(Not required for Concentrations in Graphic Design or Illustration)</i>

**STUDIO ART MAJOR CONCENTRATIONS:**

All art studio majors must select a concentration no later than the end of the freshmen year from the following options:

**CERAMICS CONCENTRATION (UARC)**

Major Core requirements and the following concentration requirements (6):

Three (3) courses in Studio Art:

ARTS 241	Ceramics
ARTS 416	Advanced Ceramics Studio
ARTS 487	Senior Studio Art Seminar

One (1) course in Art History:

ARTH 383	Contemporary Art History
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Two (2) Ceramic Electives from the following:

ARTS 266	Wheelworking
ARTS 307	Functional Ceramics
ARTS 360	Ceramic Sculpture

### **GRAPHIC DESIGN CONCENTRATION (UARD)**

Major Core requirements and the following concentration requirements (8):

ARTS 361	Graphic Design I: Typography
ARTS 404	Graphic Design II: Type, Image, and Identity
ARTS 431	Advanced Graphic Design
ARTS 488	Senior Portfolio: Graphic Design and Illustration
ARTS 495	Internship in Studio Art

Choose two (2) of the following:

ARTS 300	Life Drawing
ARTS 310	Art and Motion
ARTS 320	Graphic Design Special Projects
ARTS 356	Illustration
ARTS ____	One printmaking course
ARTS 456	Advanced Illustration
COMM 208	Basic Photography
COMM 225	Interactive Design
COMM 316	Advanced Interactive Design
COMM 330	Advanced Photography

Choose one (1) of the following:

ARTH 383	Contemporary Art History
ARTH ____	Art History Elective

### **ILLUSTRATION CONCENTRATION (UARL)**

Major Core requirements and the following concentration requirements (9):

ARTS 305	Comix and Graphic Novels
ARTS 356	Illustration
ARTS 361	Graphic Design I: Typography
ARTS 456	Advanced Illustration
ARTS 488	Senior Portfolio: Graphic Design and Illustration
ARTS 495	Internship in Studio Art

Choose two (2) of the following:

ARTS 234	Children's Book Illustration
ARTH 290	Study Tour in Art and Architecture
ARTS 310	Art and Motion
ARTS 315	Collage and Mixed Media

- ARTS 354 Painting Composition
- ARTS \_\_\_\_ One printmaking course
- ARTS 419 Advanced Drawing Studio
- ARTS 473 Special Topics in Studio Art

Choose one (1) of the following:

- ARTH 383 Contemporary Art History
- ARTH \_\_\_\_ Art History Elective

**PAINTING CONCENTRATION (UARA)**

Major Core requirements and the following concentration requirements (6):

Three (3) courses in Studio Art:

- ARTS 354 Painting Composition
- ARTS 478 Advanced Painting
- ARTS 487 Senior Studio Art Seminar

One (1) course in Art History:

- ARTH 383 Contemporary Art History

Two (2) Intermediate Painting Electives from the following:

- ARTS 315 Collage and Mixed Media
- ARTS 351 Watercolor
- ARTS 358 Landscape Painting
- ARTS 369 Figure Painting
- ARTS 377 Abstract Painting

**PRINTMAKING CONCENTRATION (UARP)**

Major Core requirements and the following concentration requirements (7):

- ARTH 383 Contemporary Art History
- ARTS 479 Topics in Advanced Printmaking
- ARTS 487 Senior Studio Art Seminar

Choose three (3) of the following:

- ARTS 261 Printmaking
- ARTS 308 Woodcut
- ARTS 328 Intaglio
- ARTS 338 Lithography

Choose one (1) of the following:

- ARTH 290 Study Tour in Art and Architecture
- ARTS \_\_\_\_ Any 300- or 400-level studio art course
- COMM 208 Basic Photography



**SCULPTURE CONCENTRATION (UARS)**

Major Core requirements and the following concentration requirements (5):

ARTH 383	Contemporary Art History
ARTS 241	Ceramics
ARTS 310	Art and Motion
ARTS 403	Sculpture
ARTS 487	Senior Studio Art Seminar

**ART EDUCATION CONCENTRATION (UARE)**

Major Core requirements and the following concentration requirements (3):

One (1) of the following printmaking courses:

ARTS 261	Printmaking
ARTS 308	Woodcut
ARTS 328	Intaglio
ARTS 338	Lithography

One (1) of the following ceramics or sculpture courses:

ARTS 241	Ceramics
ARTS 266	Wheelworking
ARTS 307	Functional Ceramics
ARTS 403	Sculpture
ARTS 416	Advanced Ceramics Studio

One (1) art history elective:

ARTH 282	American Art
ARTH 285	The Art of Asia
ARTH 288	Latin American Art
ARTH ____	300- or 400-level Art History Elective

*Note: Students with the Art Education Concentration must declare the appropriate Education Minor to complete the program.*

**REQUIRED MINOR IN ART EDUCATION FOR STUDENTS IN THE ART EDUCATION CONCENTRATION**

The Education minor shall consist of:

EDUC 200	Education in American Society with Field Study I
EDUC 222	Sheltered English Immersion
EDUC 300	Professional Preparation II: Special Needs and Educational Technology
EDUC 319	Professional Preparation and Field Study II: Methods, Special Education and Technology - Visual Art Pre-K to Grade 8 and Grades 5 – 12 (two course-credits)
PSYC 200	Psychology of Development

**Students choose either Elementary or Secondary Practicum courses below:****Elementary Licensure in Art (Pre-K - Grade 8)**

EDUC 412	Student Teaching Practicum and Seminar I: Visual Art Pre-K to Grade 8 (two course-credits)
EDUC 413	Student Teaching Practicum and Seminar II: Visual Art Pre-K to Grade 8 (two course-credits)

**Secondary Licensure in Art (Grades 5 - 12)**

EDUC 423	Student Teaching Practicum and Seminar I: Visual Art Grades 5-12 (two course-credits)
EDUC 424	Student Teaching Practicum and Seminar II: Visual Art Grades 5 - 12 (two course-credits)

**Note:** Art Department prerequisites for EDUC 319 Professional Preparation and Field Study II are as follows (prerequisites may be waived at the discretion of the Department Chair):

ARTH 270	History of Art I
ARTH 272	History of Art I
ARTH 273	Modern Art History
ARTS 200	Drawing Fundamentals
ARTS 203	Three-Dimensional Design I
ARTS 222	Color and Design
ARTS 254	Painting Methods
ARTS 300	Life Drawing

Prerequisites for EDU 412-413 and EDU 423-424 Student Teaching Practicum and Seminar I and II are as follows:

EDUC 319	Professional Preparation and Field Study II: Methods, Special Education, and Technology - Visual Art Pre-K to Grade 8 and Grades 5 – 12 (two course-credits)
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**MINORS:****MINOR IN STUDIO ART (5 COURSES)**

Five (5) courses from the art curriculum with the advice and approval of a member of the Art faculty.

**MINOR IN ART HISTORY (5 COURSES)****One (1) of the following courses:**

ARTH 160	Introduction to the World of Art
ARTH 270	History of Art I
ARTH 272	History of Art II

**Four (4) of the additional art history courses** approved by the Art History faculty, including courses from the above list and no more than one of the following:

COMM 210	History of Photography
ENGL 207	The Language of Film

ENGL 208	Film Genres
ENGL 209	Film History: 1985 to 1960
ENGL 229	Film History: 1960 to Present

### **MINOR IN MUSEUM STUDIES (7 COURSES)**

This interdepartmental minor requires that students take a minimum of five (5) courses outside of their major department. Students are strongly encouraged to complete a museum internship to complement the minor. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Museum Studies minor will be awarded without compliance with the above format.

*The minor requires five (5) to seven (7) courses as follows:*

#### **One (1) Required course:**

INTD 371	Museum Studies
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#### **Choose two (2) of the following:**

ANTH 172	Interpreting the Past: Archaeological Perspectives (Gen.Ed. Domain III-A)
FASH 253	Cultural Dress (Gen.Ed. Domain III-C)
FASH 278	History of Furniture
FASH 347	History of Textiles
FASH 223	History of Costume (Gen.Ed. Domain III-A)

#### **Choose two (2) of the following:**

ARTH 200	Art and Social Values (Gen.Ed. Domain III-C)
ARTH 272	History of Art II (Gen.Ed. Domain III-A)
ARTH 282	American Art (Gen.Ed. Domain I-B)
INTD 381	Museum Seminar or any two (2) courses approved by the Art Department Chair

#### **Choose two (2) of the following:**

HIST 154	Europe and the World since circa 1450 (Gen.Ed. Domain III-A)
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One (1) 300-level history course approved by the department chair

### **MINOR IN MUSIC (5 COURSES)**

#### **Required Courses:**

MUSC 121	Music Appreciation
MUSC 201	Theory I: Materials of Music

#### **Electives chosen from Groups A and B below according to the following:**

Three (3) courses from Group A

**or**

A combination of three (3) courses from Groups A & B

Group A:

MUSC 205	Music of the Romantic Period
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MUSC 206	Music of the Twentieth Century
MUSC 220	Women in Music
Group B:	
MUSC 141	American Musics
MUSC 151	History and Literature of Jazz
MUSC 171	World Music Cultures
MUSC 202	Theory II: Harmony

## MUSIC

### Chorus

The Framingham State University Chorus performs from a variety of styles. In addition to a major concert at the end of the fall and spring semesters, the chorus performs at ceremonial functions on campus. Refer the Semester Course Offerings for the current semester for when chorus meets for rehearsals.

## ART AND MUSIC COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

### Art History Courses:

		Domain
ARTH 160	Introduction to the World of Art	I-B
ARTH 200	Art and Social Values	III-C
ARTH 270	History of Art I	III-A
ARTH 272	History of Art II	III-A
ARTH 273	Modern Art History	I-B
ARTH 282	American Art	I-B
ARTH 285	The Art of Asia	III-C
ARTH 288	Latin American Art	III-C
ARTH 290	Study Tour: Art & Architecture	I-B

### Studio Art Courses:

		Domain
ARTS 110	Introduction to Drawing	I-A
ARTS 120	Introduction to Painting	I-A
ARTS 167	Introduction to Studio Art	I-A
ARTS 234	Children's Book Illustration	I-A
ARTS 241	Ceramics	I-A
ARTS 290	Study Tour: Art & Architecture	I-A
INTD 160	Image, Sound, and Structure: An Approach to Art and Music	I-A

<b>Music Courses:</b>		<b>Domain</b>
MUSC 111	Introduction to Electroacoustic Music Composition	I-A
MUSC 121	Music Appreciation	I-B
MUSC 141	American Musics	I-B
MUSC 151	The History and Literature of Jazz	III-C
MUSC 171	World Music Cultures	III-C
MUSC 201	Theory I: Materials of Music	II-A
MUSC 205	Music of the Romantic Period	III-A
MUSC 206	Music of the Twentieth Century	I-B
MUSC 212	Music, Dance, and Ritual in the Pacific	III-C
MUSC 220	Women in Music	III-C
MUSC 325	History of Rock Music	I-B

## ART HISTORY COURSE DESCRIPTIONS

### **ARTH 160 Introduction to the World of Art (Gen. Ed. Domain I-B)**

An introductory course designed for students with little or no background in art. The course uses a variety of teaching methods to introduce the principles of visual arts and the role that the arts play in human culture. This course does not satisfy the requirements for the Art History or Studio Art majors.

### **ARTH 200 Art and Social Values (Gen. Ed. Domain III-C)**

An exploration of art as it reflects, reinforces, and challenges society's values. The course may focus on art from different cultures and historical periods or have a special focus on one culture or time period. Students examine works of art in terms of both form and content, especially content related to political expression, power relations, and representations of race/ethnicity and/or social class, and/or gender. *Note: Students may not receive credit for both this course and 11.151 Art and Social Values.*

### **ARTH 270 History of Art I (Gen. Ed. Domain III-A)**

A study of the arts of Europe, the Near East, Asia, and pre-Columbian America from prehistory through the medieval period. Attention is given to the essential role of art in the religions and cultures of the world as well as on formal and aesthetic issues. Assignments and examinations encourage students to think and write critically about art. *Note: Students who have taken 11.271 History of Western Art I will not receive credit for ARTH 270 History of Art I.*

### **ARTH 272 History of Art II (Gen. Ed. Domain III-A)**

Study of the arts in Western and non-Western societies from the Renaissance through the 19th Century. The relationships between art, politics, and social identity as well as formal and aesthetic issues are explored as students develop their ability to think and write critically about art. *Note: ARTH 270 History of Art I is not a prerequisite for ARTH 272 History of Art II.*

### **ARTH 273 Modern Art History (Gen. Ed. Domain I-B)**

A survey of major artists and art movements from Post-Impressionism through Abstract Expressionism (1880's-1950's). Issues and events of the late nineteenth century to mid-twentieth century, such as rapidly expanding technology, world wars, utopian movements, and issues of race, class, and gender are explored in relationship to avant-garde art movements.

### **ARTH 282 American Art (Gen. Ed. Domain I-B)**

A study of the art and architecture of the United States from Colonial times through the early 20th Century. Attention is given to Native American art and the work of folk artists/craftspersons as well as that of artists nurtured in European traditions. Readings and class discussion focus on the arts as a unique expression of the American experience in relationship to history, politics, ideology, and social and technological changes. *Note: Credit will not be given for both this course and 11.378 American Art.*

**ARTH 285 The Art of Asia (Gen. Ed. Domain III-C)**

A contextual study of the arts of India, China, Japan, and Southeast Asia, spanning the ancient to post-modern worlds. The course explores major movements and schools of art, such as Buddhist sculpture, Chinese landscape painting, and Japanese prints. Readings and discussions focus on the interrelationships among art and religion, identity, and political authority. The course includes study of Western influences in Asia, and of the idea of the "Orient" in Western culture.

**ARTH 288 Latin American Art (Gen. Ed. Domain III-C)**

A study of PreHispanic, Colonial, and Modern Latin American visual culture. Emphasis is placed on social context and politics of art, including issues of race, gender, and social class. Students write a research paper and make an oral presentation to the class. Note: Students cannot receive credit for both ARTH 288 Latin American Art and ARTH 389 Special Topics in Art History: Latin American Art.

**ARTH 290 Study Tour: Art & Architecture (Gen. Ed. Domain I-B)**

(Location to be announced when offered)

A studio art or art history course taught through an extensive field trip or series of field trips, in addition to more traditional methods of teaching. Students gain direct experience of art and architecture in historic, social, and geographic contexts. The topics/locations may vary from year to year and are announced in the course schedule bulletin. This course, in a different topic/location, may be repeated for credit.

**ARTH 333 History of Graphic Design**

An investigation of the history and development of graphic design from the 1500s to the present, concentrating, mostly, on modern and contemporary design in posters, advertisements, books, magazines, television, and film. The course explores how art and culture have directly influenced many of the trends in graphic design. The art of various time periods is examined through textbook illustrations, digital images, and museum exhibitions. Class lecture, discussion, and group projects augment the text and other readings.

Prerequisite: ARTH 273 Modern Art History or permission of instructor.

**ARTH 376 Art of the Baroque Period**

A survey of the arts of the 17th and early 18th centuries, which explores the achievements of Bernini, Caravaggio, Rubens, Rembrandt, Vermeer, and Velazquez, as well as other gifted but lesser-known figures. The course relates the artistic contributions of the period to developments in political, religious, and intellectual history and considers the ways that images were produced, collected, and displayed.

**ARTH 383 Contemporary Art History**

A study of artistic developments, primarily in Europe and the United States in the contemporary era (1945 to the present), and the development of postmodernism. Consideration is given to the diversity of artistic expressions in this period within their cultural, theoretical, and political contexts. Particular attention is given to the impact on art of such late 20<sup>th</sup>-century phenomena as feminism, identity politics, multiculturalism, environmental awareness, the AIDS epidemic, and the explosion of media and technology, and the ways in which these contributing factors have helped to spawn new artistic media e.g. earth art, installation, video, performance and Web-based art.

Prerequisite: ARTH 273 Modern Art History.

**ARTH 389 Special Topics in Art History**

A study of a special period or topic in art history. Specific topics are announced in the course schedule bulletin. The course explores the art in terms of its formal elements, iconography, and social context through extensive readings, lectures, writing, and discussion. Students write a research paper. This course, on a different topic, may be repeated for credit.

Prerequisite: One art history course or permission of instructor.

**ARTH 483 Seminar in the History of Art**

An intensive investigation into one particular period or theme in Art History. Extensive readings and discussions address current theoretical and methodological issues. The course is intended to give junior and senior level students the opportunity to conduct in-depth research, write a scholarly paper, and present their research and findings in a professional manner. This seminar, if taught on a different topic, can be repeated for credit. *NOTE: No transfer course can fulfill this seminar requirement for Art History majors.* Prerequisites: ARTH 270 History of Art I and ARTH 272 History of Art II; or permission of the instructor.

**ARTH 490 Directed Study - Art History**

An Art major or minor with demonstrated ability may pursue a project or subject area of his own interest, under the guidance of a member of the Art Department faculty. The student must submit a written proposal to the faculty member who has agreed to be the advisor. A student may take more than one directed study. Limited to juniors and seniors.

**ARTH 495 Internship in Art History**

A supervised experience in a field study situation which complements the student's course work. The internship program is offered through cooperation of participating institutions which provide professional guidance for the interns. Any student who wishes to participate in the internship must consult with the Art Department Internship Coordinator not later than the middle of the semester prior to beginning of the internship.

Prerequisite: Junior and senior art majors who have a GPA of no less than 2.50 in their major.

**STUDIO ART COURSE DESCRIPTIONS****ARTS 110 Introduction to Drawing (Gen. Ed. Domain I-A)**

A basic course in drawing fundamentals specifically designed to facilitate the development of drawing skills for students who are not art majors. This course does not satisfy the Art major requirement.

**ARTS 120 Introduction to Painting (Gen. Ed. Domain I-A)**

A beginning course in painting designed for non-majors. Emphasis is on development of basic skills in visual expression. Some previous drawing experience is helpful. This course does not satisfy the Art major requirement.

**ARTS 167 Introduction to Studio Art (Gen. Ed. Domain I-A)**

A beginning course for students with little or no prior art experience. The course explores the fundamental concepts of visual art through projects in various two- and three-dimensional media. The emphasis is on participation, effort, and sensitivity to the principles of visual organization. Studio exercises are supplemented by slides, lectures, and discussion. This course does not satisfy the Art major requirement.

**ARTS 200 Drawing Fundamentals**

An introduction to the basic concepts and techniques used in drawing. These concepts include, but are not limited to, linear perspective, figure/ground relationships, and composition. Students acquire skills in modeling forms and creating more expressive drawings using a variety of media including pencil, charcoal, and ink. Through group critiques and individual instruction, students develop an understanding of drawing as a practice/process and begin building the foundation of a strong portfolio. *Note: Students cannot receive credit for both this course and ARTS 211 Drawing I.*

**ARTS 203 Three-Dimensional Design I**

A course in which problems in the nature of form, concepts of structure, and principles of design are executed in paper, cardboard, wood, clay, plaster, and masonite. Emphasis is placed upon the student's ability to conceive three-dimensional forms and execute them skillfully in space.

**ARTS 222 Color and Design**

An examination of the language of visual communication, focusing on the principles of design. Students explore line, shape, form, value, texture, color, and space in relation to various compositional strategies. Lecture and discussion sessions introduce historical and contemporary theories of two-dimensional design. *Note: Students cannot receive credit for both this course and ARTS 202 Two-Dimensional Design.*

**ARTS 230 Digital Tools for Art and Design**

An introduction to digital skill development in the creative processes of Studio Art. Emphasis is placed on the application of digital skills in relation to the hands-on nature of studio art practices necessary for fine artists, designers, and art educators. Topics may include: preparing images for a gallery brochure, building a promotional artist's website, creating storyboards for an illustrated book, creating digital art based on traditional hand rendering/building techniques, or developing a course syllabus for teaching art. Students in this course build upon art and design principles (scale, form, contrast, line, and negative space) and apply these principles through digital means such as creative software programs, scanning, and digital image-making. Building, drawing, and creating by hand are also key aspects of the course. **Open to non-studio art majors.**

**ARTS 234 Children's Book Illustration (Gen. Ed. Domain I-A)**

An introduction to the art of children's book illustration. Students work from existing, revised, or self-authored texts in the creation of narrative imagery. This course leads students through the artistic process, from initial character development and concept sketches, to dummy books, finished illustrations, and the placement of image and text. In classroom exercises, students are introduced to various wet and dry media including acrylic, colored pencil, and collage. Additional topics include the development of individual voice for picture book illustration and illustrating for a particular age group.

**ARTS 241 Ceramics (Gen. Ed. Domain I-A)**

An introduction to basic techniques in both handbuilding and wheel-working. Students begin to explore ways to make their work more personal by combining technical skills with form and concept. Emphasis is placed upon the student's ability to conceive three-dimensional forms and execute them skillfully in space. Various methods of glazing and firing are addressed as they relate to student work on specific projects.

**ARTS 254 Painting Methods**

An introductory course designed to strengthen the students' awareness of the history and techniques of the craft of painting while exposing students to contemporary styles and ideas about visual art production. This course is meant to aid in the development of the students' technical and observational skills. Students concentrate on the essential elements of painting, its materials, methods and craft. The structure of this course is centralized around a series of exercises that prepare students for higher levels of problem solving, increase their self-discipline, and develop an understanding of the articulation of brushwork, composition and color. Note: Students may not receive credit for both ARTS 221 Painting I and ARTS 254 Painting Methods.

Prerequisite: ARTS 200 Drawing Fundamentals or permission of the instructor.

**ARTS 261 Printmaking**

An exploration of various printmaking techniques, including screen printing, monotype, relief printing, drypoint, etching, and collograph. Emphasis is on understanding the social and artistic concerns of producing imagery in multiples.

**ARTS 266 Wheelworking**

An intensive introduction to working on the potter's wheel. Students learn the basic techniques of centering, opening and raising the walls of pots. Once familiar with these techniques, students learn how to create such functional objects as plates, bowls, mugs, teapots and other lidded vessels. The wheel is also considered as a tool for making more sculptural works. While being exposed to a full range of historical and contemporary pottery, students develop a personal sense of material, form, and design along with methods of glazing and firing.

Prerequisite: ARTS 241 Ceramics or ARTS 203 Three-Dimensional Design, or permission of the instructor.

**ARTS 290 Study Tour: Art & Architecture (Gen. Ed. Domain I-A)**

(Location to be announced when offered)

A studio art or art history course taught through an extensive field trip or series of field trips, in addition to more traditional methods of teaching. Students gain direct experience of art and architecture in historic, social, and geographic contexts. The topics/locations may vary from year to year and are announced in the course schedule bulletin. This course, in a different topic/location, may be repeated for credit. Additional course fees apply.

**ARTS 305 Comix and Graphic Novels**

A study of the methods and techniques of sequential narration within the contemporary art forms of comix and graphic novels. The focus of this course is on the development of a personal vision in the crafting of illustrated stories. Students are exposed to a variety of media possibilities while exploring the dynamics of pacing, framing, and the interaction of text and image.

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 307 Functional Ceramics**

An exploration of the creative possibilities within studio production ceramics. Emphasis is on the design and fabrication of a complete dinnerware set. Additional smaller sets of various types are also assigned. Students work with appropriate glazing and firing methods for functional ceramics.

Prerequisite: ARTS 241 Ceramics or ARTS 266 Wheelworking.



**ARTS 308 Woodcut**

A study of woodblock relief printing techniques including black and white, reduction, multi-block, jigsaw, monotype/monoprint, and mixed media manipulation. Students explore the creative possibilities of the medium by developing a portfolio of color and black and white woodcuts. **Note:** Students may not receive credit for both ARTS 308 and 11.263 Woodcut.

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 300 Life Drawing**

An examination of the human figure as subject matter. Drawing from live models, students develop an understanding of the basic anatomy and proportions of the human form in order to render it accurately. The second half of the course addresses the expressive and conceptual possibilities of life drawing. *Note: Students cannot receive credit for both this course and ARTS 312 Drawing II.*

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 310 Art and Motion**

A course in which students create simple sculptural forms and bring them to life by photographically recording their movements over time. Students learn to manipulate these sequences into short animated narratives using editing software. Students also learn to create and record their own sound effects in conjunction with audio software. The course is designed not only to introduce students to the world of animation as an artistic form, but also to provide them with the experience and skills to experiment with artwork digitally in a time-based aesthetic approach. Students meet artists and engineers working in animation and digital media.

Prerequisite: ARTS 200 Drawing Fundamentals or permission of the instructor.

**ARTS 315 Collage and Mixed Media**

An exploration into the many creative possibilities of collage and mixed media within the constellation of painting practice. Students research a wide range of techniques, materials and supports. The application of collage and mixed media by both modern and contemporary artists is examined in detail. *Note: Students cannot receive credit for both this course and ARTS 473 Special Topics in Studio Art: Collage and Mixed Media.*

Prerequisite: ARTS 254 Painting Methods.

**ARTS 320 Graphic Design Special Projects**

An elective for students interested in understanding the broad applications of graphic design and what it means to be a designer in a rapidly changing and complex world. Concepts are developed and explored through a variety of media such as printed materials, environmental graphic design, or time-based communications. Students learn to reflect upon and write about their work, and have regular involvement in studio critiques, discussions and lectures. Whether a beginner or an advanced designer, this course challenges students to rethink their understanding of graphic design and invites participants to openly explore the boundaries of design communication. This course, on a different topic, may be repeated for credit.

Prerequisite: ARTS 230 Digital Tools for Art and Design.

**ARTS 328 Intaglio**

A study of intaglio printmaking techniques including drypoint, engraving, mezzotint, etching, aquatint, sugarlift, open bite, spit bite, and single and multiplate color printing. Students explore the creative possibilities of these techniques and develop a portfolio of color and black and white intaglio prints. **Note:** Students may not receive credit for both this course and 11.268 Intaglio.

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 330 Digital Art**

Designed for art students and non-art students who are interested in designing artwork on the computer. Students gain experience working with current software programs using the Mac computer for painting, drawing, watercolor, and image collage on paper. Students are also exposed to mixed media and simple computer animation.

Prerequisites: ARTS 200 Drawing Fundamentals.

**ARTS 338 Lithography**

A study of stone and plate lithographic techniques including pencil, crayon, lithographic tusche, xerox transfers, gum stop-outs, two- and three-color printing. Students explore the creative possibilities of the medium in developing a portfolio of color and black and white lithographs. Emphasis is on the study of line, tone, shade, and color. This is balanced with the technical aspects of etching procedures and printing methods. **Note:** Students may not receive credit for both 11.260 and ARTS 338 Lithography.

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 351 Watercolor**

An intermediate-level course which focuses on strengthening the students' awareness of the history and techniques of watercolor and gouache while exposing students to contemporary styles and ideas about these media and aiding in the development of the students' conceptual, technical and observational skills. Students concentrate on the essential elements of these media and their materials, methods, and craft. Note: Students may not receive credit for both ARTS 250 Watercolor and ARTS 351 Watercolor.

Prerequisite: ARTS 254 Painting Methods.

**ARTS 354 Painting Composition**

An intermediate-level course that focuses on the applied study of pictorial manipulation through color and design principles. The primary goal is to strengthen the students' awareness of the history and techniques of the craft of painting while exposing the students to contemporary styles and ideas about painting. It is designed to aid in the development of skills in dealing with color, form and concept. Note: Students may not receive credit for both ARTS 322 Painting II and ARTS 354 Painting Composition.

Prerequisite: ARTS 254 Painting Methods.

**ARTS 356 Illustration**

An introduction to the practical application of drawing and painting in communication design and narrative. Students employ a variety of materials used in magazine, book, and product illustrations, including pen and ink, water color, and dry drawing media.

Prerequisite: ARTS 200 Drawing Fundamentals.

**ARTS 358 Landscape Painting**

An opportunity for the student to work within the rich and complex tradition of landscape painting, working from observation on location and in the studio. Students explore issues that affect the environment and look at the artists who tackle the subject of the landscape from a critical perspective.

Prerequisite: ARTS 354 Painting Composition.

**ARTS 360 Ceramic Sculpture**

An exploration of conceptual ideas in ceramic sculpture and installation, with the inclusion of mixed media innovations. Advanced level hand building, mold making, casting, firing, and screen printing techniques are employed, as each student works towards a body of artwork that is inventive in terms of material use. The course emphasizes clay as a material for conceptually derived forms that push the relatedness of expression, experience, and personal artistic coordinates. Engagement with the field of contemporary ceramics and professional practices are also covered in relation to conceptual interests.

Prerequisite: ARTS 241 Ceramics or permission of the instructor.

**ARTS 361 Graphic Design I: Typography**

An advanced-level Graphic Design course that synthesizes design thinking skills and formal design making skills. Students explore how their skills can be applied to real world challenges, and look at design beyond the creation of objects, understanding its potential impact on society. **Open only to Studio Art majors with concentration in Graphic Design concentration.**

Prerequisite: ARTS 404 Graphic Design II: Type, Image, Identity; or permission of instructor.

**ARTS 369 Figure Painting**

An intermediate level painting course designed for students who wish to explore various ways to incorporate the human figure into their studio practice. This course fosters the student's ability to work conceptually, employing experimentation with various idioms to promote an understanding of contemporary and critical issues in painting.

Prerequisite: ARTS 354 Painting Composition.

**ARTS 377 Abstract Painting**

An exploration of Abstraction through the discipline of painting. Topics may include organic abstraction, geometric abstraction, and non-objective imagery. The course emphasizes the position, importance and meaning of abstract painting in contemporary art and examines the Modernist tradition of abstraction as it developed throughout the twentieth century.

Prerequisite: ARTS 354 Painting Composition.

**ARTS 403 Sculpture (Media to be designated)**

Exploration of materials and techniques related to expressions in sculptural form. In order to provide diversity and flexibility, the media vary in one of five categories: (1) wood/stone, (2) clay/plaster, (3) metals, (4) plastics, (5) fibers. The medium will be designated in the course title.

**ARTS 404 Graphic Design II: Type, Image, and Identity**

An intermediate-level graphic design course that emphasizes skills in image-making and typography. Students build visual vocabularies that are applied to a variety of media such as logotypes, packaging, websites, books, signage, mobile devices, and more. Students strengthen skills through hands-on creating as well as with design software.

Prerequisite: ARTS 361 Graphic Design I: Typography.

**ARTS 416 Advanced Ceramics Studio**

Designed for those interested in expanding their ceramics experience while exploring more complex concepts and methods in ceramics. Each student creates a separate body of work for each of four themes, as determined by the instructor. Emphasis is on experimentation in design and construction as well as professional challenge.

Prerequisites: Two of the following ceramics courses: ARTS 241 Ceramics, ARTS 266 Wheelworking, or ARTS 307 Functional Ceramics.

**ARTS 419 Advanced Drawing Studio**

An advanced drawing workshop in which students are encouraged to develop themes and explore stylistic possibilities. Emphasis is placed upon conceptual problem solving and experimental approaches to the process of drawing. Students are encouraged to consider visual issues such as dramatic scale, serial imagery, and media usage. Students work with still life, the human figure, and non-objective forms in pursuing a more individualistic connection with drawing.

Prerequisite: ARTS 300 Life Drawing.

**ARTS 431 Advanced Graphic Design**

An advanced-level Graphic Design course that synthesizes design thinking skills and formal design making skills. Students explore how their skills can be applied to real world challenges, and look at design beyond the creation of objects, understanding its potential impact on society. **Open only to Studio Art majors with concentration in Graphic Design concentration.**

Prerequisite: ARTS 404 Graphic Design II: Type, Image, Identity; or by permission of the instructor.

**ARTS 456 Advanced Illustration**

An advanced study of illustration techniques and conceptual approaches. Students utilize research and media experimentation to expand the depth and potency of their personal visual voices. Projects allow students to develop work in a specific area of the illustration marketplace. Students define the framework for their senior portfolios.

Prerequisite: ARTS 356 Illustration.

**ARTS 473 Special Topics in Studio Art**

A topics course in a specified studio area designed for art majors. The course gives the art student experiences to enhance artistic, conceptual, and professional development. Current issues in art are addressed as they relate to the students' work.

Prerequisites: Four studio art courses and two art history courses.

**ARTS 478 Advanced Painting**

An exploration into subject, meaning, and content as it relates to individual concepts and personal expression in the discipline of painting. The structure of this course is self-directed studio practice overseen by the instructor. In this course, the student is expected to work towards creating a consistent and conceptually sound body of work. Painting, as a discipline, often employs methods of production that go far beyond the brush. Painting today may incorporate a multitude of working methodologies that borrow from sculpture, photography, printmaking and digital media; therefore, experimentation with differing media and hybrids in other areas may be explored.

Prerequisites: ARTS 354 Painting Composition and two (2) additional Intermediate-level painting courses.

**ARTS 479 Topics in Advanced Printmaking**

An exploration of a specific genre or topic in the printmaking/book arts discipline. The course is designed to enhance the creative, conceptual, and professional development of printmaking majors. Students work toward developing a body of work with emphasis on content and technique. Regular critique helps students develop the critical language necessary to speak about their work on a variety of levels. Contemporary issues in printmaking are addressed, particularly as they relate to students' work. This course, on a different topic, may be repeated for credit.

Prerequisite: One 300-level printmaking course or permission of the instructor.

**ARTS 487 Senior Studio Art Seminar**

A capstone course for studio art majors. The seminar enables each participant to develop a cohesive body of work for a senior portfolio review by the entire studio art faculty. Pre-professional consultation and workshops provide information concerning graduate programs, art galleries, competitions and art funding sources. Students write artist statements, cover letters, and grant proposals. Students learn how to organize their portfolios and resumes and document their work through photography. Students explore digital imaging and Web site design as appropriate to their concentration. Through field trips to commercial galleries, museums and alternative exhibition spaces as well as presentations by guest art professionals, students address issues of art and commerce. Students also research historical and contemporary work related to their own work and establish dialogue with fellow art majors in other concentrations.

Prerequisites: Art major with all core requirements for the major completed, and senior standing.

**ARTS 488 Senior Portfolio: Graphic Design and Illustration**

An advanced course in which students create an entry-level portfolio for professional work in graphic design or illustration. Through exercises and activities that help determine professional goals, students create individual project plans for the semester with the benefit of regular group critiques. The course culminates with a public exhibition in the University gallery space and a review of the finished portfolio by a group of design professionals.

**Open only to Studio Art majors with concentration in Graphic Design or Illustration.**

Prerequisite: ARTS 431 Advanced Graphic Design or ARTS 456 Advanced Illustration.

**ARTS 490 Directed Study in Studio Art**

An Art major or minor with demonstrated ability may pursue a project or subject area of his own interest, under the guidance of a member of the Art Department faculty. The student must submit a written proposal to the faculty member who has agreed to be the advisor. A student may take more than one directed study. Limited to juniors and seniors.

**ARTS 495 Internship in Studio Art**

A supervised experience in a field study situation which complements the student's course work. The internship program is offered through cooperation of participating institutions which provide professional guidance for the interns. Any student who wishes to participate in the internship must consult with the Art Department Internship Coordinator not later than the middle of the semester prior to beginning of the internship.

Prerequisite: Junior and senior art majors who have a GPA of no less than 2.50 in their major.

**INTERDISCIPLINARY COURSE DESCRIPTIONS****INTD 160 Image, Sound, and Structure: An Approach to Art and Music (Gen. Ed. Goal I-A)**

An introduction to visual art and music consisting of a seven-week music module and a seven-week visual art module. The course examines the elements and principles that compose images and musical works. In a variety of experiences, conceptual and physical, students explore the components and structures necessary to create works of music and visual art. Students are active participants in creating, listening, and responding to artistic forms. Both modules emphasize the integrative possibilities of the arts and other disciplines.

**INTD 371 Museum Studies**

An examination of the structure and functions of museums, including collections, preservation and conservation, and phases of exhibition planning. Discussion and museum trips are included in this course.

Prerequisite: Open to all majors with the permission of the instructor.

**INTD 381 Museum Seminar**

The development and presentation of a museum exhibition, including research, installation, catalog, publicity and education programs.

Prerequisite: INTD 371 Museum Studies or permission of the instructor.

*The following courses also carry credit as Art electives:*

**COMM 208 Basic Photography**

Please see Communication Arts Department section for course description.

**COMM 210 History of Photography**

Please see Communication Arts Department section for course description.

**ENGL 209 Film History: 1895 to 1960**

Please see English Department section for course descriptions.

**ENGL 229 Film History: 1960 to Present**

Please see English Department section for course descriptions.

## MUSIC COURSE DESCRIPTIONS

**MUSC 111 Introduction to Electroacoustic Music Composition (Gen. Ed. Domain I-A)**

An introduction to the hardware, software and techniques involved with composing, editing and producing original electroacoustic music. The primary goal is to gain facility in using a modern recording/production studio for creative purposes. Such skills include a working knowledge of how to use a mixing console, proper microphone usage, and file management in a digital studio. The student also gains software experience in sound editing, composition, sequencing, mixing, synthesis and virtual instrument design. Most importantly, the student utilizes these tools to create original compositions.

**MUSC 121 Music Appreciation (Gen. Ed. Domain I-B)**

Introductory study of music as a communicative art. The course covers the major vocal and instrumental forms (e.g., opera, oratorio, symphony, and concerto) as they occur in stylistic periods from the seventeenth century through the twentieth century.

**MUSC 125 Chorus**

A course in which students sing choral music from the past and present in a variety of vocal styles. This course is an introduction to the analysis of rhythm, harmony, melody, phrasing, dynamics, and timbre as it relates to and informs choral performance. Students earn a grade of P (pass) or F (fail). To earn credit for one course (one-course credit) for Chorus, students must complete four semesters of Chorus at Framingham State University as a chorus member in good standing. The four semesters at FSC need not be taken sequentially. At the time of registration, students may select Chorus as a fifth course.

**MUSC 141 American Musics (Gen. Ed. Domain I-B)**

An introductory study of the diverse musical traditions that form the American heritage. Examining performance in its cultural setting, this course surveys music of the colonial period, Anglo and African-American folk musics, popular forms of the 19th and early 20th centuries, jazz, blues, rock music, indigenous and immigrant styles, and composers in the Western classical tradition.

**MUSC 151 The History and Literature of Jazz (Gen. Ed. Domain III-C)**

An introduction to the vast expanses of the jazz idiom from both a musical/aesthetic and socio-historical standpoint. The course examines the roots of jazz, its influence upon serious and rock music, and the contributions of major innovative figures including Louis Armstrong, Benny Goodman, Dizzy Gillespie, Art Tatum, and John Coltrane. Listening experiences better enrich the student's understanding of stylistic trends such as ragtime, blues, boogie-woogie, dixieland, swing, bebop, and third stream.

**MUSC 171 World Music Cultures (Gen. Ed. Domain III-C)**

An introductory survey of selected non-Western musical traditions, including those of Asia, Latin America, Oceania, Africa, and Native America. Topics include song and dance styles, musical instruments, social context and function of performance genres, musical structure, traditional versus contemporary music, and aesthetic principles.

**MUSC 201 Theory I: Materials of Music (Gen. Ed. Domain II-A)**

An introduction to the basic language and practices of Western music theory. The course provides a theoretical model for understanding music of the written tradition based on logical reasoning and deduction as methods for understanding and manipulating geometric and spatial patterns of pitch and duration that are foundational to analysis of musical compositions.

**MUSC 202 Theory II: Harmony**

Basic chordal structures, inversions, progressions and non-harmonic tones. Dominant seventh and extended chords in root position and inversions. Modulation to closely related keys. Keyboard harmony and ear-training.

Prerequisite: MUSC 201 Theory I: Materials of Music.

**MUSC 205 Music of the Romantic Period (Gen. Ed. Domain III-A)**

A music listening course focusing on a broad range of music from the nineteenth century. Both "program music" (program symphony, concert overture, and tone-poem) and "absolute music" (symphony, concerto, string quartet) are studied, as well as opera and the short lyric forms (character piece for piano and the art song).

**MUSC 206 Music of the Twentieth Century (Gen. Ed. Domain I-B)**

A survey of twentieth-century classical music and composers, covering the roots of modernism in impressionism and postromanticism through developments in atonality, chance music, serialism, nationalism, quotation music, minimalism, electronic, and computer music.

**MUSC 212 Music, Dance and Ritual in the Pacific (Gen. Ed. Domain III-B)**

A study of selected performance traditions from the indigenous cultures of the Pacific Islands and Australia, approaching music and dance as expressive arts situated in their cultural context. Topics include musical forms and genres, functions of performance in traditional and contemporary life, musical instruments, and aesthetics. The course will also examine how performance reflects cultural adaptations to outside influences such as missionary and government bodies, imported technologies, and events of worldwide importance (e.g. World War II, atomic testing).

**MUSC 220 Women in Music (Gen. Ed. Domain III-C)**

A cross-cultural survey of the musical contribution of women which examines their roles as performers, composers, and patrons of arts. Topics range from women in Western classical music, blues, and jazz - including Hildegard von Bingen, Clara Schumann, Bessie Smith, and Billie Holiday - to non-Western musical performers such as the Japanese Geisha and the Javanese singer.

**MUSC 235 History of Rock Music (Gen. Ed. Domain I-B)**

An introduction to the history and evolution of rock styles from their mid-twentieth century origins in pop, country, and the blues to the present. The course will include stylistic analysis and critical listening, as well as discussion of the technological, social, and political issues that play a role in rock music history.

# Biology

**Chair: Aline Davis**

Professors: Richard Beckwitt, Aline Davis\*\*,  
Walter Lambert, Eugene Muller,  
Brandi Van Roo

Associate Professors: Stephen Dinkelacker, Aviva E. Liebert,  
Rebecca Shearman, Amanda Simons

Assistant Professors: Bryan Connolly, Amy Knapp, Andrea Kozol,  
Jeffrey White

\*Sabbatical: Fall 2016

\*\*Sabbatical: Spring 2017

## General Education Requirements

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Sciences) and laboratory requirement are satisfied through the completion of the Biology major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## BIOLOGY MAJOR

### Departmental Requirements

Biology majors must complete core requirements as well as additional requirements for the particular concentration chosen (see below).

- A. The following thirteen (13) Biology core requirements (12 course-credits) are required of Biology majors in all concentrations:

#### Biology Major Core:

BIOL 160	Introduction to Organismal Biology
BIOL 161	Introduction to Cellular and Molecular Biology
BIOL 208	Genetics
BIOL 260	Cell Biology
BIOL 308	Reading and Analysis of Biological Literature (0.5 course-credit)
BIOL 318	Writing for the Biological Sciences (0.5 course-credit)
BIOL 402	Processes of Organic Evolution
CHEM 107	Principles of Chemistry (Gen.Ed.)
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
MATH 200	Precalculus (Gen.Ed.)*
MATH 208	Biostatistics (Gen.Ed.) or ENVS 202 Data Analysis for Scientists

**Biology Major Capstone:**

BIOL 460            Research Experience in Biology\*\*

*\*Students proficient at the precalculus level should enroll in MATH 219 Calculus I to satisfy the Gen. Ed. Domain Common Core Math requirement.*

*\*\*An original research project is required of all Biology majors. Students may enroll in this course only after completing both BIOL 308 Reading and Analysis of Biological Literature and BIOL 318 Writing for the Biological Sciences. Prior to enrollment in BIOL 460 Research Experience in Biology, the student should meet with her/his advisor and with other Biology faculty to tailor the research project to the student's interests and career goals.*

- B. Additional courses are required of Biology majors in all concentrations. Biology electives are listed below in groups labeled "A-E". The number and distribution of electives required for completion of a Biology major varies according to the concentration selected by the student.

**Group A: Cellular and Molecular Biology Electives**

BIOL 262            Molecular Biology  
 BIOL 307            Microbiology  
 BIOL 340            Immunology  
 BIOL 360            Biology of Cancer  
 BIOL 371            Medical Microbiology  
 BIOL 409            Developmental Biology  
 BIOL 453            Seminar in Recombinant DNA Technology

**Group B: Organismal Diversity Electives**

BIOL 203\*           Plants and Society  
 BIOL 211            Biology of the Reptilia  
 BIOL 232            Invertebrate Zoology  
 BIOL 251            Vascular Plant Taxonomy  
 BIOL 320            Animal Behavior  
 BIOL 336            Ornithology  
 BIOL 350            Vascular Plant Anatomy and Morphogenesis

*\* This course may not be used as a required plant course.*

**Group C: Physiology Electives**

BIOL 224\*           Animal Physiological Ecology  
 BIOL 235\*           Principles of Human Physiology  
 BIOL 241\*           Human Anatomy and Physiology I  
 BIOL 242            Human Anatomy and Physiology II  
 BIOL 255            Plant Physiology  
 BIOL 303            Physiology of Exercise  
 BIOL 325            Neurobiology  
 NEUR 225            Biopsychology  
 NEUR 380            Neuropharmacology

*\* Only one of these courses may be taken in order to receive biology credit.*



**Group D: Ecological and Evolutionary Biology Electives**

BIOL 233	Comparative Vertebrate Anatomy
BIOL 321	Limnology
BIOL 335	Principles of Wildlife Biology
BIOL 341	Marine Biology
BIOL 248	Principles of Ecology
BIOL 291	Principles of Tropical Ecology and Conservation: Field Study
BIOL 413	Quantitative Conservation Biology
BIOL 457	Quantitative Plant Ecology

**Group E: Advanced Biology Electives**

BIOL 490	Independent Study in Biology
BIOL 495	Internship in Biology

- C. For students who plan to pursue an advanced degree in Biology, the following courses are strongly recommended:

CHEM 301	Biochemistry I
MATH 219	Calculus I
PHYS 201	Introductory Physics <b>or both</b> PHYS 211 Physics I <b>and</b> PHYS 212 Physics II

*(Note: MATH 219 Calculus I is a pre-requisite for Principles of Physics I.)*

**CONCENTRATIONS****GENERAL BIOLOGY (UBIG):**

Biology majors may elect to take a broad spectrum of courses covering the major areas of biology: cellular and molecular biology, organismal biology, physiology, and ecology and evolutionary biology, possibly combined with a minor according to the student's interests. This curriculum prepares students for the advanced Graduate Record Examination in Biology, a prerequisite for admission to many graduate programs in biology. In addition to entering graduate school, students graduating with a bachelor's of science in biology are employed as laboratory technologists in academic and industrial settings, sales representatives for pharmaceutical and biotechnology companies, scientific illustrators, and technical writers.

Students must take an additional six (6) biology electives (one of these courses must focus on plants and one on animals):

**One (1) course from Group A****One (1) course from Group B****One (1) from the following Group C courses:**

BIOL 224*	Animal Physiological Ecology
BIOL 235*	Principles of Human Physiology
BIOL 242*	Human Anatomy and Physiology II
BIOL 255	Plant Physiology

*\*Only one of these courses may be taken in order to receive Biology credit.*

**One (1) from the following Group D courses:**

BIOL 248	Principles of Ecology
BIOL 457	Quantitative Plant Ecology

**Two (2) additional courses from Group A-E****WILDLIFE AND ENVIRONMENTAL BIOLOGY (UBIW):**

Requirements for the concentration in wildlife and environmental biology include courses in wildlife biology or environmental science, both animal and plant systems, ecology, and policy/communication. Upon graduation, students will have completed the majority of curriculum requirements for certification as a Wildlife Biologist by the Wildlife Society. Graduates of this program are prepared for graduate studies or careers as wildlife biologists, wildlife managers, conservation biologists, environmental consultants, park rangers, and zookeepers.

**Students must take seven (7) additional courses:**

BIOL 224	Animal Physiological Ecology
BIOL 251	Vascular Plant Taxonomy
BIOL 335	Principles of Wildlife Biology
BIOL 248	Principles of Ecology

**Must choose one course from each of the following biology elective groups:**

- One (1) course from Group A
- One (1) course from Group B
- One (1) course from Group D

Other courses that are not required but would be useful for students in this concentration include the following:

CHEM 300	Principles of Biochemistry
EASC 246	Oceanography
GEOG 216	Introduction to Geographical Information Systems (GIS)
GEOG 235	Environmental Law and Policy
GEOG 240	Municipal Land Use
GEOG 375	Resource Management
PHYS 201	Introductory Physics
POSC 329	Public Policy Analysis

*Note: Students interested in certification by The Wildlife Society should meet with the program advisor when choosing electives.*

**BIOTECHNOLOGY (UBIO):**

Students may elect a curriculum that emphasizes cellular and molecular biology. Courses covering microbiology, immunology, genetics, recombinant DNA technology, and cell culture are appropriate for those interested in research positions in the biotechnology industry, medical centers, and government agencies. Graduates of the program are also prepared for careers in diverse areas of the pharmaceutical industry such as product development, sales and marketing, quality control, and technical training.

Students must take an additional six (6) biology electives (One of these six courses must focus on plants and one on animals):

**Three (3) courses from Group A****One (1) course from Group B****Two (2) courses from Group C - which must include one of the following:**

BIOL 224*	Animal Physiological Ecology
BIOL 235*	Principles of Human Physiology
BIOL 242*	Human Anatomy and Physiology II
BIOL 255	Plant Physiology

*\*Biology credit will be given to only one of these courses.*

All students in this concentration are advised to take CHEM 208 Organic Chemistry II; those with a career goal in plant-oriented biotechnology are advised to take BIOL 255 Plant Physiology. For students who plan to attend graduate school, it is recommended that they take CHEM 301 Biochemistry I, PHYS 201 Introductory Physics, or elect a more in-depth study of physics by taking PHYS 211 Principles of Physics I and PHYS 212 Principles of Physics II. (Note: MATH 219 Calculus I is a prerequisite for PHYS 211 Principles of Physics I.)

**BIOLOGY SECONDARY EDUCATION TEACHING PROGRAM (UBIT):**

Students who plan to teach at the middle school or high school level will fulfill the Commonwealth's requirements for secondary education certification in biology by completing a program similar to the general biology concentration. Students must also declare and complete the requirements for a Secondary Education Minor (see Education Department section of the catalog).

**Students must take the following additional courses:**

BIOL 235	Principles of Human Biology or
	BIOL 241 Human Anatomy & Physiology I <b><u>and</u></b>
	BIOL 242 Human Anatomy & Physiology II
BIOL 248	Principles of Ecology
PHSC 109	Introduction to Physical Science (for EEB Minor) <b>or</b>
	PHYS 201 Introductory Physics (for SEB Minor)

**One (1) of the following courses relating to plants:**

BIOL 203	Plants and Society
BIOL 251	Vascular Plant Taxonomy
BIOL 255	Plant Physiology

*Recommended Courses:*

BIOL 307	Microbiology
GEOL 231	Physical Geology

*Eight (8) additional courses are also required for a Secondary Education Minor (see Education section of the University catalog).*

*Note: Before registering for EDUC 300 Professional Preparation II: Special Needs and Educational Technology and EDUC 315 Professional Preparation and Field Study II - High School or EDUC 316 Professional Preparation and Field Study II - Middle School, students must have completed ten (10) of the eleven (11) Biology core requirements (all courses, except for BIOL 460 Research Experience in Biology and five (5) of the six (6) Biology Secondary Teaching Program requirements; those remaining courses may be taken concurrently. Before enrolling in EDUC 410/411 Student Teaching Seminar and Practicum I/II - High School or EDUC 414/415 Student Teaching Practicum and Seminar I/II - Middle School, students must have completed all courses in the major and EDUC 300 Professional Preparation II: Special Needs and Educational Technology, EDUC 315 or EDUC 316.*

**PRE-HEALTH PROGRAM (UBIP):**

This concentration is designed for Biology majors who plan to attend medical school, dental school, veterinary school, or pursue a career in either human or animal health. Though specific programs may have additional or slightly varying requirements, these basic courses are required by the majority of professional schools. Students are strongly advised to meet the pre-professional advisor early in their coursework.

Students must take eight (8) courses, depending upon their interest in either veterinary or human studies respectively:

**Either:**

BIOL 224	Animal Physiological Ecology <i>(recommended for veterinary studies)</i>
<b>and</b>	
BIOL 233	Comparative Vertebrate Anatomy

**Or:**

BIOL 241	Human Anatomy & Physiology I
<b>and</b>	
BIOL 242	Human Anatomy & Physiology II <i>(recommended for human studies)</i>

**One (1) course from Group A****The following five (5) courses are also required:**

CHEM 208	Organic Chemistry II
CHEM 301	Biochemistry I
MATH 219	Calculus I
PHYS 211	Principles of Physics I
PHYS 212	Principles of Physics II

## **ENVIRONMENTAL SCIENCE AND POLICY MAJOR (UEVG) (Home Department-Geography)**

This major is a collaboration with the Geography and Biology departments and is designed to provide the interdisciplinary background necessary for an environmental professional today. It combines a strong foundation in science, emphasizing biology, with broad training in geographical theory and techniques. This interdisciplinary training is necessary to create and implement environmental policy.

This program will prepare students to solve complex multidisciplinary problems and to communicate effectively with the scientific community and the general public. Graduates with this major will be prepared to successfully obtain positions with consulting firms, governmental agencies, private corporations, and non-profit organizations. They will be prepared for work as environmental analysts, town wetlands administrators, environmental educators, or environmental scientists.

They will also be prepared to pursue graduate studies in Environmental Science, Conservation Biology, Resource Management, Environmental Planning, Environmental Engineering, Environmental Law, and Environmental Education. Graduates who choose not to pursue careers in Environmental Science will be well prepared for any career that requires a strong science background emphasizing data analysis, critical thinking, integration of complex information, spatial interpretation skills, effective communication and problem resolution skills.

### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Science) requirement is satisfied through the completion of the Environmental Science major.

### **Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### **Required Core courses (13):**

BIOL 130	Principles of Biology (Gen.Ed. Domain II-B & Lab)
BIOL 251	Vascular Plant Taxonomy
BIOL 248	Principles of Ecology
CHEM 103	Introductory Chemistry* (Gen.Ed. Domain II-B, Lab)
CHEM 201	Introductory Organic Chemistry and Biochemistry
ECON 102	Principles of Microeconomics (Gen.Ed. Domain III-B)
GEOL 231	Physical Geology (Gen.Ed. Domain II-B, Lab)
GEOG 216	Introduction to Geographical Information Systems
GEOG 235	Environmental Law and Policy
GEOG 375	Resource Management
ENVS 101	Introduction to Environmental Science
ENVS 202	Data Analysis for Scientists
ENVS 451	Senior Thesis in Environmental Science I (0.5 course-credit)
ENVS 452	Senior Thesis in Environmental Science II (0.5 course-credit)

### **Restricted Electives (Six (6) courses):**

#### ***Science -***

#### **Choose two (2) courses:**

BIOL 211	Biology of the Reptilia
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BIOL 232	Invertebrate Zoology
BIOL 335	Wildlife Biology
BIOL 336	Ornithology
BIOL 341	Marine Biology
BIOL 291	Principles of Tropical Ecology and Conservation: Field Study
EASC 241	Introduction to Meteorology (Gen.Ed. Domain II-B)
EASC 246	Oceanography (Gen.Ed. Domain II-B)
GEOL 233	Environmental Geology
PHYS 201	Introductory Physics (Gen.Ed. Domain II-B, Lab)

**Policy and Planning -****Choose three (3) courses:**

ANTH 161	Cultural Anthropology (Gen.Ed. Domain III-B)
GEOG 135	Introduction to Environmental Studies
GEOG 212	Geographical Perspectives on the Global Environment
GEOG 214	Spatial Analysis Using Geographic Information Systems
GEOG 225	Population, Food, and Global Development
GEOG 230	Geography of Natural and Man-Made Hazards
GEOG 240	Municipal Land Use
GEOG 272	Site Planning
GEOG 316	Advanced Geographic Information Systems
GEOG 328	Introduction to Remote Sensing
GEOG 339	Methods for Planning Analysis & Plan Making
PHIL 234	Environmental Ethics
POSC 223	Bureaucratic Politics and Power
POCS 250	American Legal Systems
POSC 329	Public Policy Analysis

**Communication -****Choose one (1) course:**

COMM 107	Effective Speaking (Gen.Ed. Domain I-A)
COMM 115	Introduction to Speech Communication
COMM 328	Argumentation and Advocacy
ENGL 225	Introduction to Journalism
ENGL 372	Technical Writing

\*Students may elect to take CHEM 107 Principles of Chemistry and CHEM 108 Principles of Chemistry and Quantitative Analysis. Students choosing this option must take CHEM 207 Organic Chemistry I as a Restricted Elective in the Science area.

## MINORS

### MINOR IN BIOLOGY (5 COURSES):

An introductory biology laboratory course, a chemistry laboratory course and a minimum of three (3) biology courses which must be 200-level and above. A minimum of two (2) must have a laboratory. All courses must be chosen under the guidance of a member of the Biology Department. If college credit is received for either an examination or advanced placement, the introductory course requirement shall be waived. At least three (3) of the courses must be taken on the Framingham State University campus.

### MINOR IN NEUROSCIENCE (5 COURSES)

Neuroscience is the study of the nervous system, the cells and tissues of which it consists; the thoughts, emotions and behaviors that it manifests and the way it changes due to stimuli from both inside and outside the body. It is an interdisciplinary science that combines aspects of Biology, Psychology, Philosophy, and Chemistry. Neuroscientists examine the development, structure and function of the nervous system, what happens in disease states and mental illness and how different compounds can alter its activity.

Students interested in a minor in Neuroscience should see the chair of either the Biology Department or the Psychology and Philosophy Department.

*Note: Only one (1) course may be taken within the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements.*

#### Four (4) Required Courses:

BIOL 142            Introduction to Human Biology (Domain II-B, Lab) **or**  
 PSYC 101        General Psychology (Domain III-B)

*NOTE: Student who are not Biology or Psychology majors must take both courses.*

NEUR 225        Biopsychology\*  
 PHIL 222        Bioethics (Domain III-C)  
 PSYC 263        Cognitive Psychology\* **or**  
 BIOL 325        Neurobiology\*

#### One (1) Elective Courses:

*From the following list:*

BIOL 320        Animal Behavior\*  
 NEUR 348        Cognitive Neuropsychology\*  
 NEUR 380        Neuropharmacology\*  
 NEUR 490        Independent Study in Neuroscience\*  
 NEUR 495        Internship in Neuroscience\*  
 PSYC 245        Health Psychology\*  
 PSYC 280        Sensation & Perception\*

*\* Indicates course has a prerequisite.*

## BIOLOGY COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses		Domain
BIOL 101	Biological Concepts	II-B, Lab
BIOL 103	Biological Perspectives on Environmental Issues	II-B
BIOL 109	Introduction to Biological Science	II-B, Lab
BIOL 112	Biology of Marine Organisms	II-B, Lab
BIOL 114	A Human Perspective on Genetics	II-B
BIOL 130	Principles of Biology	II-B, Lab
BIOL 142	Introduction to Human Biology	II-B, Lab
BIOL 203	Plants and Society	II-B

### BIOLOGY COURSE DESCRIPTIONS

#### **BIOL 101 Biological Concepts (Gen. Ed. Domain II-B, Lab)**

An approach to the study of biology that emphasizes conceptual understanding of biological systems. These areas include evolution and the origin of life, cellular processes, Mendelian and molecular genetics, ecology, behavioral science, and basic physiological systems. The interrelationship of these areas and their effect on human biology are stressed. **Laboratory (3 hours)**. This course is not open to Biology majors. *Note: This course is required for students in the Coordinate Major in Elementary Education and recommended for students in the Coordinate Major in Early Childhood Education.*

Prerequisites: MATH 095 General Mathematics or a satisfactory score on the mathematics placement exam; and status as a Coordinate Education major.

#### **BIOL 103 Biological Perspectives on Environmental Issues (Gen. Ed. Domain II-B)**

An introduction to the scientific principles on which environmental decisions should be based. Methods of biological conservation practice are stressed. The course includes a discussion of the development and future of the conservation movement. Occasional field trips. No laboratory. This course is not open to Biology majors. *Note: Students may not receive credit for both this course and BIOL 103 Ecological Implications of Conservation.* **No laboratory. This course is not open to Biology majors.**

#### **BIOL 109 Introduction to Biological Science (Gen. Ed. Domain II-B, Lab)**

An introduction to the fundamental concepts of biological science. Topics include structures and processes from molecules to organisms, inheritance and variation of traits, ecosystem interactions, energy and dynamics, and biological evolution. Emphasis is placed on scientific interpretation as well as content. **Laboratory (3 hours)**.

*Note: This course is not open to science or coordinate education majors.*

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement exam.

#### **BIOL 112 Biology of Marine Organisms (Gen. Ed. Domain II-B, Lab)**

An introduction to life in the oceans, including basic principles of ecology, a description of the important organisms, and the impact of humans on marine life. **Laboratory (3 hours). This course is not open to Biology majors.**

#### **BIOL 114 A Human Perspective on Genetics (Gen. Ed. Domain II-B)**

An exploration of the field of genetics from the rediscovery of Mendel's work in 1900 up to the present, with an emphasis on human involvement and ramifications. Topics may include: the human genome project, genetic disorders, cloning, genetically modified crops and animals, prenatal and postnatal genetic screening and mass production of pharmaceuticals. **This course is not open to Biology majors.**



**BIOL 130 Principles of Biology (Gen. Ed. Domain II-B, Lab)**

An introduction to the principles and methods of biological science that serve as a foundation for students, in majors other than Biology, intending to take additional biology courses. The course focuses on the following topics: ecology, evolution, biological diversity, biochemistry and cellular processes, genetics, and physiology.

**Laboratory (3 hours). This course is not open to Biology majors.** *Note: This course is only open to majors in Chemistry, Food Science, Earth Science, Environmental Science, and Food & Nutrition.*

**BIOL 142 Introduction to Human Biology (Gen. Ed. Domain II-B, Lab)**

An exploration of the functional aspects of the human body at the molecular, cellular, organ, and systems levels. Emphasis is on the development and evolution of homeostatic mechanisms that allow the body to respond and adapt to physical and emotional stresses under changing environmental conditions. **Laboratory (3 hours). This course is not open to Biology or Food & Nutrition majors, except for students in the Nutrition & Wellness concentration.**

**BIOL 160 Introduction to Organismal Biology**

An introduction to the organismal, population, community, and ecosystem levels of biological organization for students intending to major in Biology. The course examines the processes of evolution, the diversity of the biological world, and the interactions of organisms and their environment. **Laboratory (3 hours)** periods concentrate on developing basic skills of observation, measuring and interpreting data, and the reading and reporting of experimental work. Offered Fall semester only. **Note:** Students cannot receive credit for both BIOL 108 Biology II and BIOL 160 Introduction to Organismal Biology.

Prerequisite: MATH 123 College Algebra or eligibility to enroll in MATH 200 Precalculus.

**BIOL 161 Introduction to Cell and Molecular Biology**

An introduction to the molecular, cellular, and physiological levels of biological organization. The course examines the processes of energy release, photosynthesis, heredity, molecular control of cells, and selected topics in physiology. **Laboratory (3 hours)** periods concentrate on developing basic skills of observation, measuring and interpreting data, and the reading and reporting of experimental work. Offered **Spring** semester only. **Note:** Students cannot receive credit for both BIOL 107 Biology I and BIOL 161 Introduction to Cell and Molecular Biology.

Prerequisites: Completion of CHEM 107 Principles of Chemistry with a grade of C- (1.70) or higher and MATH 200 Precalculus (may be taken concurrently).

**BIOL 203 Plants and Society (Gen. Ed. Domain II-B)**

An exploration of the dependency of humans on plants and plant products. The beginning of agriculture and its consequences for human evolution are discussed. The origins, dispersals, improvements, and uses of economically valuable plants are considered along with their relationships to the world's economy. Occasional field trips. **No laboratory.** **NOTE:** *This course is acceptable for majors as a biology elective, but not in place of a required plant course.*

**BIOL 205 Wildlife Specimen Preparation Techniques (0.5 Course-credit)**

An introduction to the techniques of wildlife specimen collection and preparation applicable to research, museum, and education specimens. Students learn the regulatory application and reporting procedures for wildlife salvage. Students learn and practice preservation techniques for wildlife skins and skeletons while, at the same time, learning external, muscular, and skeletal anatomy of a diversity of animals. All specimens are salvaged, i.e. died of other causes. This course may be taken a second time in order for the student to learn and practice advanced preservation techniques. Laboratory (3 hours).

**BIOL 208 Genetics**

A study of the principles governing heredity in all living things, including microorganisms, plants, and animals. Topics covered include Mendelian inheritance, molecular genetics, cytogenetics, human hereditary disease, and population genetics. **Laboratory (3 hours).**

Prerequisites: CHEM 108 Principles of Chemistry and Quantitative Analysis; MATH 200 Precalculus; and either BIOL 130 Principles of Biology or BIOL 161 Introduction to Cell and Molecular Biology; or permission of instructor.

**BIOL 211 Biology of the Reptilia**

An examination of reptiles including diversity, variation in reproduction, life history, feeding, and conservation biology of the major groups. Students become familiar with the techniques and tools necessary to identify reptiles as well as basic research techniques.

**Laboratory (3 hours).** Laboratory includes field trips.

Prerequisite: BIOL 101 Biological Concepts, BIOL 109 Introduction to Biological Science or BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology; or permission of the instructor.

**BIOL 224 Animal Physiological Ecology**

An introduction to the physiological adaptations and mechanisms by which animals compensate for environmental variation. **Laboratory (3 hours).** *Note: Students may not receive credit for both this course and BIOL 234 Comparative Vertebrate Physiology.*

*Note:* Students may receive credit for **only one (1)** of the following courses: BIOL 224 Animal Physiological Ecology or BIOL 235 Principles of Human Physiology or BIOL 242 Human Anatomy and Physiology II.

**Prerequisites:** CHEM 107 Principles of Chemistry and BIOL 160 Introduction to Organismal Biology and BIOL 161 Introduction to Cell and Molecular Biology, each with a minimum grade of C- (1.70); or permission of the instructor.

**BIOL 232 Invertebrate Zoology**

A comparative study of the invertebrate animal phyla with emphasis on marine forms. The course stresses functional morphology, development, behavior, and ecological and evolutionary relationships among the various groups. Students study live specimens whenever possible. **Laboratory (3 hours)** exercises include field trips to collect and study invertebrates of the region.

Prerequisite: BIOL 130 Principles of Biology or both BIOL 160 Introduction to Organismal Biology and BIOL 161 Introduction to Cell and Molecular Biology or permission of the instructor.

**BIOL 233 Comparative Vertebrate Anatomy**

An introduction to the evolution of vertebrate anatomy. The course is a survey of the anatomical designs of living and extinct vertebrates, emphasizing the anatomical adaptations of vertebrate organs and organ systems in primitive chordates, fishes, reptiles, and mammals. Laboratories are primarily dissection based. **Laboratory (3 hours).**

Prerequisites: BIOL 130 Principles of Biology or both BIOL 160 Introduction to Organismal Biology and BIOL 161 Introduction to Cell and Molecular Biology; and one (1) other science laboratory course; or permission of the instructor..

**BIOL 235 Principles of Human Physiology**

An overview of the functional anatomy of the human body and its physiology. Basic concepts concerning the skeletal, muscular, nervous, respiratory, cardiovascular, digestive, urinary, endocrine, and reproductive systems are studied. **Laboratory (3 hours).** **Note:** Students may receive credit for only one (1) of the following courses: BIOL 224 Animal Physiological Ecology, BIOL 235 Principles of Human Physiology, or BIOL 242 Human Anatomy and Physiology II.

Prerequisites: A grade of C- (1.70) or higher in both an introductory biology course with laboratory and an introductory chemistry course with laboratory.

**BIOL 241 Human Anatomy and Physiology I**

A study of the functional systems in the human body and the maintenance of homeostasis. Systems covered in this course include integumentary, bone, joints, muscle, cardiovascular, and cellular aspects of the nervous system. **Laboratory (3 hours).**

Course offered Fall semester. *Note: Students may not receive credit for both this course and BIOL 235 Principles of Human Physiology or BIOL 273 Human Anatomy & Physiology: Musculoskeletal & Control Systems.*

Prerequisites: A grade of C- (1.70) or higher in both an introductory biology course with laboratory and an introductory chemistry course with laboratory.

**BIOL 242 Human Anatomy and Physiology II**

A continuation of BIOL 241 Human Anatomy & Physiology I. This course focuses on system physiology, with particular emphasis on the respiratory, blood, endocrine, reproductive, nervous, urinary and digestive systems. **Laboratory (3 hours).** Course offered Spring semester. *Note: Students cannot receive credit for both BIOL 242 Human Anatomy and Physiology II and BIOL 272 Human Anatomy & Physiology: Cellular & Organ Systems.*

Prerequisite: BIOL 241 Human Anatomy and Physiology I or permission of instructor.

**BIOL 248 Principles of Ecology**

An introductory course that emphasizes the interactions between the organism and its biological and physical environments. Concepts covered include soil, climate, trophic systems, life history trade-offs, behavioral ecology, biodiversity, and human impacts.

**Laboratory (3 hours)** includes field trips. *Note: Students may not receive credit for both this course and BIOL 348 Ecology.*

Prerequisites: A chemistry course with laboratory, and either BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology; or permission of the instructor.

**BIOL 251 Vascular Plant Taxonomy**

An historical view of plant classification; concepts of nomenclature, goals of phylogenetic and biosystematic investigations; anatomical and morphological characteristics important in classification; key characteristics of important temperate plant families; collection and identification techniques; and introduction to the local flora.

**Laboratory (3 hours).**

Prerequisite: BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology.

**BIOL 255 Plant Physiology**

An introduction to basic processes that regulate plant growth and development. Photosynthesis, photomorphogenesis, hormonal control, and mineral acquisition are emphasized. The **Laboratory (3 hours)** has an open-ended design with an emphasis on repeatability of experimental results.

Prerequisites: CHEM 107 Principles of Chemistry; BIOL 130 Principles of Biology or both BIOL 160 Introduction to Organismal Biology and BIOL 161 Introduction to Cell and Molecular Biology.

**BIOL 260 Cell Biology**

A study of the cell's biological and biochemical processes, with an emphasis on the relationship between structure and function of molecules and organelles. **Laboratory (3 hours).**

**Prerequisites:** CHEM 108 Principles of Chemistry and Quantitative Analysis; MATH 200 Precalculus; and either BIOL 130 Principles of Biology or BIOL 161 Introduction to Cell and Molecular Biology; or permission of instructor.

**BIOL 262 Molecular Biology**

An examination of the way the cell accesses, uses, and maintains the information stored in the genome. It begins with an overview of DNA structure and topology, continues with replication, transcription, and translation, and concludes with gene regulation. Special topics could include cancer, stem cells, and RNAi, and focusing on the structure-function relationships of the molecules involved in these processes. **Laboratory (3 hours).**

Prerequisites: BIOL 161 Introduction to Cell and Molecular Biology and CHEM 108 Principles of Chemistry and Quantitative Analysis; or permission of the instructor.

**BIOL 291 Principles of Tropical Ecology and Conservation: Field Study**

An examination of ecological principles as they apply to tropical ecosystems. Topics covered include tropical climate and soils, geological history of Central America, biological diversity, characteristics and types of tropical communities, types of interactions among community members, ecological succession, anthropogenic impacts and conservation. The course requires a 1-2 week field trip during spring break or after the end of the semester to a tropical ecosystem (at additional cost). The field portion of this course includes some strenuous activities; students are strongly encouraged to consider whether they are physically and emotionally prepared for rigorous activity and travel in a developing nation. *Note: This course is open only to majors/minors in Biology or Environmental Science & Policy.*

Prerequisites: BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology; and permission of the instructor.

**BIOL 303 Physiology of Exercise**

An examination of the function of the human body during exercise and the adaptations that occur in response. Emphasis is placed on the metabolic, neuromuscular, cardiovascular, respiratory and hormonal responses to exercise. **Laboratory (3 hours).**

Prerequisite: A grade of C- (1.70) or higher in BIOL 224 Animal Physiological Ecology, BIOL 235 Principles of Human Physiology, or BIOL 242 Human Anatomy and Physiology II or permission of instructor.

**BIOL 307 Microbiology**

An introduction to the structure, reproduction, physiology and taxonomy of microorganisms. Special attention is given to bacteria and viruses. Emphasis is placed on aspects of microbiology of significance to humankind, including pathogenesis, immunity, microbial ecology, pollution control, food microbiology, and biotechnology. **Laboratory (3 hours)** exercises introduce the student to standard techniques of cultivation and identification of microorganisms, food microbiology, DNA purification and analysis, immunological assays, as well as encourage independent investigations.

Prerequisites: CHEM 107 Principles of Chemistry and either BIOL 130 Principles of Biology or BIOL 161 Introduction to Cell and Molecular Biology.

**BIOL 308 Reading and Analysis of Biological Literature (0.5 course-credit)**

An introduction to peer-reviewed publications in the biological sciences. Students learn how to critically read and interpret current and classical research articles. Skills developed include data interpretation, analysis of methodology and conclusions, and determination of the paper's overall impact in the field of biology. Topics vary by semester with instructor. This course is open to Biology majors only.

Prerequisites: CHEM 108 Principles of Chemistry and Quantitative Analysis and MATH 200 Precalculus and completion of BIOL 161 Introduction to Cell and Molecular Biology with a grade of C- (1.70) or higher; or permission of instructor.

**BIOL 318 Writing for the Biological Sciences (0.5 course-credit)**

Designed to develop skills in scientific writing to prepare students for future biology coursework and careers. Skills developed include the appropriate use of scientific style and format, the ability to summarize and critically evaluate research findings, and the proper citation of sources. This course is open to Biology majors only.

Prerequisites: BIOL 308 Reading and Analysis of Biological Literature with a minimum grade of C- (1.70) or permission of instructor.

**BIOL 320 Animal Behavior**

A study of the influence of natural selection on the behavior of animals. This course emphasizes the distinction between the immediate causes of behavior, including external stimuli and internal physiological mechanisms, and the ultimate consequences or survival value of behavior. Topics such as learning and instinct, aggression, territoriality, communication, and social behavior are discussed. **Laboratory (3 hours).**

Prerequisite: Two (2) biology courses (NEUR 225 Biopsychology can be one of these courses) or permission of the instructor.

**BIOL 321 Limnology**

The study of inland aquatic ecosystems including lakes, rivers, and wetlands. Links between the abiotic environment and biota are emphasized. Topics may include physical-chemical gradients, biogeochemical cycles, freshwater organisms, species interactions, and the impact and management of human stressors (e.g., eutrophication, acid deposition, invasive species, and climate change). Students learn standard field sampling techniques and lab analyses and apply these methods as they examine current scientific questions and issues. **Laboratory (3 hours)** includes field trips.

Prerequisite: BIOL 248 Principles of Ecology or permission from instructor.

**BIOL 325 Neurobiology**

An advanced examination of the development, structure and function of the central and peripheral nervous systems. Topics covered include synaptic communication, neurotransmission, sensory and motor processing, reflexes and cellular processes of learning and memory. It is designed for biology or psychology majors with an interest in neurophysiology. **Laboratory (3 hours).**

Prerequisite: BIOL/PSYC 225 Biopsychology or BIOL 224 Animal Physiological Ecology or BIOL 242 Human Anatomy and Physiology II; or permission of the instructor.

**BIOL 335 Principles of Wildlife Biology**

A study of the distribution of major wildlife groups in the United States. The principles of wildlife management and evaluation of land and water habitats are stressed, as well as population growth dynamics and field procedures. **Laboratory (3 hours).**

Prerequisites: CHEM 107 Principles of Chemistry and either BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology.

**BIOL 336 Ornithology**

An introduction to the biology of birds, including anatomy, physiology, behavior, ecology, field identification, and conservation. Students become familiar with the techniques and tools necessary to identify bird species by sight and/or sound, as well as with basic research techniques. **Laboratory (3 hours)** includes field trips.

Prerequisite: A biology or zoology course at the 100-level or permission of the instructor.

**BIOL 340 Immunology**

A study of the principles of immunology and its application to diseases and health. The course examines the molecular and cellular components of the immune system relevant to infectious diseases, genetic- and infection-associated immunodeficiency, cancer, hypersensitivity, autoimmunity, and transplantation. **Laboratory (3 hours).**

Prerequisite: BIOL 307 Microbiology or permission of instructor.

**BIOL 341 Marine Biology**

An introduction to the variety of marine environments and the biological and physical factors which contribute to the productivity of these areas. Oceanic habitats are compared to other ecosystems including tropical and temperate estuaries, coral reefs and salt marshes. Problems of human interaction with the marine environment are emphasized.

**Laboratory (3 hours).**

Prerequisite: BIOL 101 Biological Concept, BIOL 130 Principles of Biology, or both BIOL 160 Introduction to Organismal Biology and BIOL 161 Introduction to Cell and Molecular Biology.

**BIOL 356 Biology of Cancer**

An overview of the biology of cancer. Topics include the process of oncogenesis, the cellular mechanisms of oncogenes and tumor suppressors, chemotherapeutics, and targeted cancer therapies.

Prerequisite: BIOL 208 Genetics **or** BIOL 260 Cell Biology **or** BIOL 262 Molecular Biology **or** CHEM 301 Biochemistry I **or** CHEM 3XX Principles of Biochemistry; or permission of instructor.

**BIOL 360 Wildlife Management and Conservation Topics (0.5 Course-credit)**

A seminar that explores recent wildlife management and conservation issues. Topics are current and, thus are ever-changing. Topics may include human-wildlife conflicts, regulatory and policy decisions, emerging wildlife diseases, genetic techniques for wildlife conservation, and climate adaptation plans for wildlife management. State and regional wildlife issues, are emphasized, including state endangered species regulatory review process, local invasions of exotic species, and urban predator management.

Prerequisite: BIOL 130 Principles of Biology or BIOL 160 Introduction to Organismal Biology; or permission of the instructor.

**BIOL 371 Medical Microbiology**

An overview of human infectious diseases caused by viruses, bacteria, and fungi. Emphasis will be placed on current diagnostic techniques and microbial pathogenic mechanisms, and on contemporary issues that include newly emerging infectious diseases, vaccines, and bio-terrorism. **Laboratory (3 hours)** exercises focus on state-of-the-art procedures for the isolation and identification of pathogenic microbes and for the determination of their susceptibility to chemotherapeutic drugs.

Prerequisite: BIOL 307 Microbiology.

**BIOL 390 Special Topics in Biology**

An in-depth examination of a field or subject matter in the Biological Sciences. Specific topics are announced prior to each term when offered, at the discretion of the Department. This course may be taken twice, provided a different special topic is being examined.

Prerequisite: Junior or senior standing and two (2) Biology courses (one must have a laboratory); or permission of the instructor. Additional prerequisites may be required dependent upon topic.

**BIOL 402 Processes of Organic Evolution**

A study of the historical development of evolutionary thought in the pre- and post-Darwinian periods; the interplay among mutations, recombination, gene flow, natural selection, and genetic drift in determining the direction of evolutionary change; isolating mechanisms and the origins of species; the role of polyploidy in plant evolution; the significance of hybridization in evolution and speciation; evidences of evolution from various disciplines. **No laboratory.**

Prerequisite: BIOL 208 Genetics.

**BIOL 406 Methods in Biological Research I**

Designed to develop a working appreciation of methods of scientific inquiry through development of an original research proposal. Topics included are: problem definition, literature survey, resource bibliography, and research design, including proposed data analysis. Normally taken in the spring term of the junior year, this course is open only to Biology majors.

Prerequisite: MATH 208 Biostatistics, CHEM 108 Principles of Chemistry and Quantitative Analysis or equivalent, at least four biology courses at the 200-level or above and a minimum cumulative QPA of 1.70 in all Biology courses.

**BIOL 407 Methods in Biological Research II**

A continuation of Methods I (BIOL 406) in which the students implement their research design under the supervision of a department faculty member. The research may be conducted off-campus with approval of course coordinator. Open only to Biology majors. Prerequisite: Completion of BIOL 406 Methods in Biological Research I with a minimum grade of C- (1.70) or better.

**BIOL 409 Developmental Biology**

A study of the fundamental principles that regulate animal development from sperm and egg formation through the mechanisms by which the basic organization of the embryo arises from the fertilized zygote. Topics covered include fertilization, nuclear cytoplasmic interactions, gastrulation, animal cloning, cell-cell interactions, formation of the nervous system, and sex differentiation. **Laboratory (3 hours)** exercises include both descriptive and experimental embryology.

Prerequisite: BIOL 260 Cell Biology or permission of the instructor.

**BIOL 413 Quantitative Conservation Biology**

An introduction to the use of quantitative data in the conservation and management of wildlife populations. This course examines various population projection models and the underlying factors that affect population responses, as well as decision making and management. Laboratories are primarily computer based. **Laboratory (3 hours).**

Prerequisite: BIOL 335 Principles of Wildlife Biology or BIOL 248 Principles of Ecology or permission of the instructor.

**BIOL 453 Seminar in Recombinant DNA Technology**

An examination of the process of recombinant science, beginning with generation of an experimental question, experimental design using existing tools and/or developing new tools, and analysis of results. Students read a series of seminal research papers in the field of recombinant DNA technology, beginning with the earliest papers on DNA structure and molecular cloning, published in the 1950's-1970's, continuing with historically relevant papers that built on early advances, and ending with recent breakthroughs in the field, including gene therapy and stem cells.

Prerequisite: BIOL 262 Molecular Biology or permission of instructor.

**BIOL 460 Research Experience in Biology**

A synthesis of the undergraduate biology experience. Students work on research projects under the supervision of a member of the Biology Department. Projects may include laboratory techniques, field skills, experimental design, data analysis, and scientific communication. This course is open to Biology majors only. Course meets for six (6) hours per week. Content and assignments vary by semester and instructor.

Prerequisites: MATH 208 Biostatistics or ENVS 202 Data Analysis for Scientists; four (4) Biology courses at the 200-level or above, a minimum GPA of 2.00 in courses within the major, and completion of BIOL 318 Writing for the Biological Sciences with a grade of C- (1.70) or higher; or permission of the instructor.

**BIOL 490 Independent Study in Biology**

An opportunity for the Biology major to work independently in an area relevant to the student's special interests. Each student's experience is planned in cooperation with a department member. Progress reports and final written and oral reports are required.

Prerequisites: Biology major of junior or senior standing, two semesters completed at Framingham State University, overall QPA of 2.50, and approval of the department chair. The independent study option is reserved for those students who have previously demonstrated sufficient motivation and self-discipline to work independently.

**BIOL 495 Internship in Biology**

A supervised field study in the area of the student's interest that complements formal course work. The internship program is offered through cooperation of participating institutions that provide guidance for the interns. A minimum of 160 on-site hours is necessary to complete the internship in Biology and must be verified by the on-site supervisor and a member of the Biology faculty. The 160 hours must be completed within one semester. The internship in Biology may be taken for one (1) course-credit in the major as a free elective. A student may not enroll in an internship more than twice (two (2) course-credits). Any student interested in participating in an internship must consult with the Biology Department chair prior to the middle of the semester preceding the semester of the desired internship. A written plan for the internship must be submitted by the student to the department chair. The plan must be approved by the department chair as well as the faculty member who serves as internship coordinator. The student must meet with the faculty internship coordinator at least four times during the semester. The grade for the internship is assigned by the internship coordinator and the on-site supervisor. Data gathered during the internship may not be utilized for BIOL 407 Methods in Biological Research II.

Prerequisites: Biology majors of senior standing, two semesters completed at Framingham State University, overall GPA of 2.50 with a 2.75 average in courses for the major, and approval of the department chair.

**NEUROSCIENCE COURSE DESCRIPTIONS****NEUR 225 Biopsychology**

An overview of the biological foundations of behavior and mental processes. Topics covered include the biological underpinnings or various domains in psychology such as emotion, motivation, perception, cognitive function, psychopharmacology, and hormone effects on the brain and behavior. **No Laboratory.**

Prerequisite: PSYC 101 General Psychology and one of the following biology courses: BIOL 109 Introduction to Biological Science, BIOL 130 Principles of Biology, BIOL 142 Human Biology, or BIOL 161 Introduction to Cellular and Molecular Biology; or permission of instructor.

**NEUR 380 Neuropharmacology**

An advanced investigation into the cellular and molecular mechanisms of exogenous compounds and the physiological and behavioral responses of the body. Use of substances to treat mental disorders is emphasized. Compounds examined may include alcohol, tobacco, illicit drugs, prescription pharmaceuticals, over-the-counter medications and naturopathic treatments. **No Laboratory.**

Prerequisites: Two (2) Biology courses at the 200-level or above; or two (2) Psychology courses at the 200-level or above, at least one (1) of which must be PSYC 225 Biopsychology, PSYC 245 Health Psychology or PSYC 280 Sensation and Perception; or permission of the instructor.

**NEUR 490 Independent Study in Neuroscience**

An opportunity for the advanced student to conduct an in-depth investigation of a special topic in Neuroscience relevant to the student's special interests. The ability to work independently with a high degree of motivation and self-discipline is expected. The student is responsible for arranging with a supervising professor the topics or material to be covered, the method of study and the method of evaluation. Note: Any data gathered for this course cannot be used for the research methods courses in either Biology or Psychology.

Prerequisites: Declared Neuroscience minor; junior or senior standing; completion of at least three (3) core courses in the Neuroscience minor; completion of at least two (2) semesters at Framingham State University; minimum overall GPA of 2.50; and permission of the department chair of the supervising professor.

**NEUR 495 Internship in Neuroscience**

A supervised field placement that complements prior Neuroscience course work. The internship is offered in cooperation with a participating business, institution, agency, school, hospital, or research facility. A minimum of 8 hours per week (120 hours total) must be completed in the placement setting and must be completed within one (1) semester. The field work is supported by regular meetings on campus with the supervising professor. Any student interested in an internship must consult with the chair of either the Biology Department or Psychology and Philosophy Department in the middle of the semester preceding the semester of the desired internship. Students are responsible for securing a placement and presenting it to the department chair and supervising professor for approval. A written plan for the internship must be submitted by the student to the department chair prior to approval. Note: Data gathered for this course may not be used in any research methods courses in either Biology or Psychology. Prerequisites: Declared Neuroscience minor; junior or senior standing; completion of at least three (3) core courses in the Neuroscience minor, completion of at least two (2) semesters at Framingham State University, minimum overall GPA of 2.50; and permission of the department chair of the supervising professor.

**ENVIRONMENTAL SCIENCE COURSE DESCRIPTIONS****ENVS 101 Introduction to Environmental Science**

A comprehensive survey of the principles concerning the interactions of humans and their environment for students intending to major in Environmental Science and Policy. The scientific foundations and the policy implications of population growth, natural resources, pollution, and agriculture are examined in the context of present capabilities and the prospects for future development. No laboratory.

Prerequisites: ENGL 110 Expository Writing (may be taken concurrently) and one (1) credit bearing math course (may be taken concurrently).

**ENVS 202 Data Analysis for Scientists**

A comprehensive study of how to use powerful statistical tools to prepare, analyze, interpret, and visualize data collected in the physical, biological and environmental sciences. Practical and applied analysis are emphasized using case studies and critical assessment of the use of statistical methods in published literature. Topics include design of experiments, univariate distributions, exploratory data analysis, inferential statistics and hypothesis testing, linear and generalized linear models, and time-series analysis, using the statistical computing and graphics software R. Non-parametric analyses and careful consideration of confidence intervals are emphasized.

Prerequisite: MATH 123 College Algebra or the eligibility to enroll in MATH 200 Precalculus.

**ENVS 451 Senior Thesis in Environmental Science I (0.5 course-credit)**

The first of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students will apply the methods of scientific inquiry by developing an original research proposal. Topics that will be discussed include: scientific method, problem definition, literature survey, resource bibliography, scientific writing, oral presentation skills, research design, and statistical data analysis. A final grade of C- in this course is required in order to register for the second-semester course ENVS 450.

Prerequisites: ENVS 101 Introduction to Environmental Science, CHEM 103 Introductory Chemistry, ENVS 202 Data Analysis for Scientists, at least two (2) 200-level science courses, one (1) 200-level policy course, completion or concurrent enrollment in GEOG 375 Resource Management, and minimum cumulative QPA of 1.70 in all courses required for the Environmental Science major.

**ENVS 452 Senior Thesis in Environmental Science II (0.5 course-credit)**

The second of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students complete their original research project by acquiring, analyzing, summarizing, and interpreting their data in both a written thesis and an oral presentation to the campus community.

Prerequisite: Completion of ENVS 451 Senior Thesis in Environmental Science I with a minimum grade of C- (1.70).



# Business

## Chair: Patricia Thomas

Professors:	Sandra Rahman
Associate Professors:	Karen Druffel, Michael J. Harrison, Robert Krim, Patricia E. Thomas
Assistant Professors:	Borga Deniz, Francis Kemegue, Zhe Li, Erastus Ndinguri, Paul Piwko, Jorge Riveras, Frances Skyeck, Beverly Soriano
Instructor:	Ella Karat, Timothy Mines, Chantal Rowat

\*Sabbatical: Fall 2016

\*\*Sabbatical: Spring 2017

## The General Education Requirement

All students must satisfy a general education requirement consisting of eleven (11) courses outside of the major department. The General Education Domain II-A (Analysis, Modeling, and Problem Solving) requirement is satisfied through the completion of the major in Accounting or Business & Information Technology. The General Education Domain III-C (Global Competency, Ethical Reasoning, and/or Human Diversity) requirement is satisfied through the completion of major in Finance, Management, or Marketing.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## Majors

The Department of Business offers a Bachelor of Science (B.S.), with majors Accounting, Business Information & Technology, Finance, Management, and Marketing.

## Related Minors

Students are encouraged but not required to select a minor in another discipline. A number of minors offered by other departments complement the majors offered by the Business Department and enhance the students' preparation for their individual employment or graduate school goals. Students should discuss these possibilities with their academic advisors.

## ACCOUNTING MAJOR

### Major Required Core courses (14):

ACCT	220	Introduction to Financial Accounting
ACCT	221	Introduction to Managerial Accounting
BUIS	200	Introduction to Business Systems
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
FINA	248	Managerial Finance
MATH	123*	College Algebra (Gen.Ed. Domain II-A)
MGMT	215	Legal Environment of Business

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MGMT	280	Organizational Behavior
MGMT	372	Operations Management
MRKT	181	Marketing Principles
QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics

*\*Students with a score on the mathematics placement exam which allows them to take MATH 200 Precalculus may substitute MATH 200 Precalculus, MATH 215 Finite Mathematics, or MATH 219 Calculus I for MATH123 College Algebra.*

**Required Capstone Course:**

MGMT	485	Business Policy and Strategy
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**Accounting Core courses (UACG) (6):**

ACCT	303	Accounting Information Systems
ACCT	321	Intermediate Accounting I
ACCT	322	Intermediate Accounting II
ACCT	326	Cost Accounting
ACCT	428	Taxation
ACCT	429	Auditing

**FINANCE MAJOR****Major Required Core courses (9):**

ACCT	220	Introduction to Financial Accounting
ACCT	221	Introduction to Managerial Accounting
BUIS	200	Introduction to Business Systems
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
FINA	248	Managerial Finance
MATH	107	Business Statistics
MATH	217	Business Calculus
MGMT	215	Legal Environment of Business
MGMT	280	Organizational Behavior
MGMT	372	Operations Management
MRKT	181	Marketing Principles

**FINANCE CONCENTRATIONS**

All Finance majors need to select either Finance – General or Financial Planning as their concentration as follows:

**FINANCE - GENERAL (UFIG) (7)****Four (4) Concentration Core Required courses:**

FINA	301	Financial Markets and Institutions
FINA	431	Corporate Finance
FINA	445	Investments
MGMT	485	Business Policy and Strategy

**Plus choose three (3) elective courses from:**

ACCT	303	Accounting Information Systems
ACCT	326	Cost Accounting
ACCT	428	Taxation
ECON	320	Money and Banking
FINA	300	Fundamentals of Financial Planning and Insurance
FINA	321	Retirement and Estate Planning
FINA	357	Multinational Finance
FINA	420	Financial Theory and Modeling

**FINANCIAL PLANNING (UFIP) (7)****Five (5) Concentration Core Required courses:**

ACCT	428	Taxation
FINA	300	Fundamentals of Financial Planning and Insurance
FINA	321	Retirement and Estate Planning
FINA	400	Case Studies in Financial Planning
FINA	445	Investments

**Plus choose two (2) elective courses from:**

FINA	100	Principles of Financial Literacy
FINA	301	Financial Markets and Institutions
FINA	357	Multicultural Finance
FINA	431	Corporate Finance

**MANAGEMENT MAJOR****Major Required Core courses (9):**

ACCT	220	Introduction to Financial Accounting
ACCT	221	Introduction to Managerial Accounting
BUIS	200	Introduction to Business Systems
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
FINA	248	Managerial Finance
MATH	107	Business Statistics
MATH	217	Business Calculus

**Business****Framingham State University Undergraduate Catalog 2016-2017**

MGMT	215	Legal Environment of Business
MGMT	280	Organizational Behavior
MGMT	372	Operations Management
MRKT	181	Marketing Principles

**Required Capstone Course:**

MGMT	485	Business Policy and Strategy
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**MANAGEMENT CONCENTRATIONS**

All Management majors need to select a concentration from the four (4) listed as follows:

**ENTREPRENEURSHIP (UMGE) (6)****Three (3) Required courses:**

ENTR	300	Entrepreneurship: Starting Your Business
ENTR	301	Cultivating and Managing Innovation
ENTR	495	Entrepreneurship Practicum or MGMT 495 Management Internship

**Plus three (3) elective course from:**

ACCT	428	Taxation
ENTR	302	Social Entrepreneurship
ENTR	495	Entrepreneurship Practicum or MGMT 495 Internship in Business
MGMT	300	Doing Business Abroad
MGMT	308	Managing Across Cultures
MRKT	310	Marketing Research
MRKT	308	Digital and Social Media Marketing

**INTERNATIONAL BUSINESS (UMGI) (6)****Three (3) Required courses:**

MGMT	308	Managing Across Cultures
MGMT	412	International Business
MRKT	318	International Marketing

**Choose Three (3) elective courses from:**

ECON	200	Economics of Globalization
ECON	410	International Trade
FINA	357	Multinational Finance
MGMT	300	Doing Business Abroad

**MANAGEMENT (UMGG) (6)****Three (3) Required courses:**

MGMT	308	Managing Across Cultures
MGMT	381	Human Resource Management

MGMT 412 International Business

**Choose three (3) electives 300-level or above from:**

ENTR \_\_\_\_ Entrepreneurship Elective (*Must be 300-level or above*)

MGMT \_\_\_\_ Management Elective (*Must be 300-level or above*)

**SPORTS MANAGEMENT (UMGS) (6)**

**Four (4) Required courses:**

ECON 324 Economics of Sport

MGMT 301 Sport Management

MGMT 321 Sport Facility and Event Management

MRKT 324 Sports Marketing

**Choose two (2) elective courses from:**

MGMT 300 Doing Business Abroad

MGMT 308 Managing Across Cultures

MGMT 381 Human Resource Management

MGMT 495 Internship in Business (can be repeated for total of two (2) course-credits)

MGMT 412 International Business

MRKT 313 Advertising and Promotions

MRKT 318 International Marketing

SOCI 220 Sport in Society

**MARKETING MAJOR**

**Major Required Core courses (13):**

ACCT 220 Introduction to Financial Accounting

ACCT 221 Introduction to Managerial Accounting

BUIS 200 Introduction to Business Systems

ECON 101 Principles of Macroeconomics

ECON 102 Principles of Microeconomics

FINA 248 Managerial Finance

MATH 107 Business Statistics

MATH 217 Business Calculus

MGMT 215 Legal Environment of Business

MGMT 280 Organizational Behavior

MGMT 372 Operations Management

MRKT 181 Marketing Principles

**Required Capstone Course:**

MGMT 485 Business Policy and Strategy

**Marketing Core Courses (UMKG) (3):**

MRKT	310	Marketing Research
MRKT	301	Brand Management
MRKT	402	Strategic Marketing

**Choose three (3) electives 300-level or above from:**

MRKT	_____	Marketing Elective ( <i>Must be 300-level or above</i> )
MGMT	300	Doing Business Abroad
MGMT	308	Managing Across Cultures
MGMT	495	Internship in Business

**BUSINESS AND INFORMATION TECHNOLOGY MAJOR (UITB)  
(Home Department: Business)**

This major is a collaboration with the Business and Computer Science departments and provides students with knowledge in both the business and information technology fields. The intent of this program is to prepare the Business and Information Technology program can “bridge the gap” between technology and business. As entry level workers, they are likely to qualify for jobs as systems analysts, Project Management Office administrators, technical trainers, quality assurance analysts and similar roles. As experienced workers, they are likely to move into Project Management, Delivery Assurance and IT Management roles.

**Required Business core courses (13):**

ACCT	220	Introduction to Financial Accounting
ACCT	221	Introduction to Managerial Accounting
BUIS	411	Information Systems Research
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
FINA	248	Managerial Finance
MGMT	215	Legal Environment of Business
MGMT	280	Organizational Behavior
MGMT	372	Operations and Project Management
MRKT	181	Marketing Principles
QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics

**Required Computer Science core courses (6):**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	120	Introduction to Information Technology
CSCI	130	Introduction to Programming
CSCI	258	Introduction to Operating Systems Using UNIX
CSCI	360	Database Management
CSCI	376	Networking Technologies

**Required Mathematics course (1):**

MATH 123 College Algebra\*

*\*Students with a score on the mathematics placement exam which allows them to take MATH 200 Precalculus may substitute MATH 200 Precalculus, MATH 215 Finite Mathematics, or MATH 219 Calculus I for MATH123 College Algebra.*

**Capstone Requirement (1):**

BUIS 460 Information Systems Management

**MINORS****MINOR IN ACCOUNTING (5 COURSES)****The minor requires five (5) courses as follows:****Four (4) required courses:**

ACCT 220 Introduction to Financial Accounting  
 ACCT 221 Introduction to Managerial Accounting  
 ACCT 321 Intermediate Accounting I  
 ACCT 322 Intermediate Accounting II

**One (1) elective from the following list:**

ACCT 303 Accounting Information Systems  
 ACCT 326 Cost Accounting  
 ACCT 425 Advanced Accounting  
 ACCT 428 Taxation  
 ACCT 429 Auditing

**MINOR IN BUSINESS (5 COURSES)**

This minor is not open to Business & Information Technology majors.

**The minor requires five (5) courses as follows:****Four (4) required courses:**

ACCT 220 Introduction to Financial Accounting  
 ECON 101 Principles of Macroeconomics **or**  
 ECON 102 Principles of Microeconomics  
 MGMT 280 Organizational Behavior  
 MRKT 181 Marketing Principles

**One (1) elective from the following list:**

ACCT 221 Introduction to Managerial Accounting  
 BUIS 200 Introduction to Business Systems  
 ECON 101 Principles of Macroeconomics **or**  
 ECON 102 Principles of Microeconomics  
 MGMT 215 Legal Environment of Business  
 MGMT 381 Human Resource Management

**MINOR IN ENTREPRENEURSHIP (5 COURSES)**

This minor is not open to Management Majors with a concentration in Management or Entrepreneurship.

**The minor requires five (5) courses as follows:**

**Three (3) required courses:**

ENTR	300	Entrepreneurship: Starting your Business
ENTR	301	Cultivating and Managing Innovation
ENTR	302	Social Entrepreneurship

**Two (2) electives from the following list:**

ENTR	495	Entrepreneurship Internship Practicum
MGMT	215	Legal Environment of Business
MGMT	280	Organizational Behavior
SOCI	306	Nonprofit Giving

**MINOR IN FINANCE (5 COURSES)**

**The minor requires five (5) courses as follows:**

**Four (4) required courses:**

ACCT	220	Introduction to Financial Accounting
FINA	300	Fundamentals of Financial Planning and Insurance <b>or</b> FINA 301 Financial Markets and Institutions
FINA	248	Managerial Finance
FINA	431	Corporate Finance <b>or</b> FINA 445 Investments

**One (1) electives from the following list:**

FINA	321	Retirement and Estate Planning
FINA	300	Fundamentals of Financial Planning and Insurance <b>or</b> FINA 301 Financial Markets and Institutions
FINA	357	Multinational Finance
FINA	420	Financial Theory and Modeling
FINA	431	Corporate Finance <b>or</b> FINA 445 Investments

**MINOR IN INFORMATION TECHNOLOGY (5 COURSES)**

To earn a minor in Information Technology, students must apply in writing to the Chair of the Computer Science Department. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Information Technology minor will be awarded without compliance with the above format.

***The minor requires five (5) courses as follows:***

***Three (3) required courses:***

BUIS	200	Introduction to Business Systems
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CSCI 120	Introduction to Information Technology (must be taken prior to other courses in the minor)
CSCI 140	Introduction to the Internet, Graphics, and Multimedia

**Two (2) electives from the following list:**

***Communication Arts:***

COMM 200	Design for Integrated Media
COMM 225	Interactive Design
COMM 316	Advanced Multimedia
COMM 327	Computer Animated Techniques

***Computer Science:***

CSCI 108	HTML, JavaScript Programming, and Web Site Development
CSCI 130	Computer Science I Using Java
CSCI 230	Principles of Information Technology Operations
CSCI 215	Computer Science II Using Java
CSCI 258	Introduction to Operating Systems using UNIX
CSCI 306	Introduction to Visual Basic
CSCI 320	Windows Server and Client Management
CSCI 345	Computer and Network Security

***Geography:***

GEOG 214	Spatial Analysis Using Geographic Information Systems
GEOG 216	Introduction to Geographic Information Systems

***Mathematics:***

MATH 117	Introduction to Statistics <b>or</b> MATH 208 Biostatistics
MATH 307	Intermediate Statistics

**MINOR IN MARKETING (5 COURSES)**

**The minor requires five (5) courses as follows:**

**Two (2) required courses:**

MRKT 181	Marketing Principles
MRKT 301	Brand Management

**Three (3) electives from the following list:**

MGMT 300	Doing Business Abroad
MRKT 308	Digital and Social Media Marketing
MRKT 310	Marketing Research
MRKT 313	Promotional Strategy
MRKT 318	International Marketing
MRKT 320	Retail and Business Marketing

MRKT 324	Sports Marketing
MRKT 375	Sales
MRKT 402	Strategic Marketing
MRKT 410	Advanced Marketing Research

### MINOR IN SPORTS MANAGEMENT (5 COURSES)

The minor requires five (5) courses as follows:

Four (4) required courses:

MGMT 301	Sport Management
MGMT 321	Sport Facility and Event Management
MRKT 181	Marketing Principles
MRKT 324	Sport Marketing

One (1) electives from the following list:

ECON 323	The Economics of Sports
MGMT 280	Organizational Behavior
MGMT 300	Doing Business Abroad
SOCI 220	Sport in Society (Gen.Ed. Domain III-C)

### BUSINESS COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Course		Domain
FINA 100	Principles of Financial Literacy	II-A

### ACCOUNTING COURSE DESCRIPTIONS

#### ACCT 220 Introduction to Financial Accounting

A study of financial and accounting systems starting with accounting cycle and going through the preparation and interpretation of financial statements for all types of business entities. Topics include generally accepted accounting principles, the theory of accounts, and the theory of present value as it relates to financial accounting problems. Note: Credit will not be given for both this course and ACCT 120 Introduction to Financial Accounting.

Prerequisite: Sophomore Standing.

#### ACCT 221 Introduction to Managerial Accounting

A study of the internal accounting reporting needs of a business. This course integrates management theory, budgeting, cost analysis, valuations, and ethics. Note: Credit will not be given for both this course and ACCT 121 Introduction to Managerial Accounting.

Prerequisite: ACCT 220 Introduction to Financial Accounting.

#### ACCT 303 Accounting Information Systems

A study of the procedures used to provide financial information in a timely manner. The course covers the process of conveying financial data for internal reporting to management for planning and controlling future business activities. Accounting information systems combines controls and accounting tools with technology in the decision making process. Topics include internal control, business processes, data management and integrated production processes as related to accounting processes.

Prerequisite: ACCT 221 Introduction to Managerial Accounting.

**ACCT 321 Intermediate Accounting I**

An intensive study of generally accepted accounting principles dealing with balance sheet evaluations and their effect on income determination. Topics include applications of present value techniques to accounting, valuation and reporting of cash, receivables, short-term investments, inventories, fixed assets and intangible assets.

Prerequisite: ACCT 221 Introduction to Managerial Accounting.

**ACCT 322 Intermediate Accounting II**

Additional topics in financial accounting, including an in-depth analysis of current and long-term liabilities, capital stock, options and warrants, earnings-per-share calculations, convertible securities, retained earnings and dividends, and statement of changes in financial position. Also studied are income-tax allocations, pension accounting, and accounting for lease transactions.

Prerequisite: ACCT 321 Intermediate Accounting I.

**ACCT 326 Cost Accounting**

A treatment of presentation and analysis of data to facilitate decision-making in the organization. Topics covered include cost evaluation, forecasting, variance analysis, cost structures, cost behavior patterns, break-even analysis, and capital budgeting.

Prerequisite: ACCT 221 Introduction to Managerial Accounting.

**ACCT 425 Advanced Accounting**

An examination of special topics in financial accounting. Topics include the effect of price-level changes on financial reporting, business combinations, consolidated financial statements and intercompany transactions, accounting for foreign operations, and fund accounting.

Prerequisite: ACCT 322 Intermediate Accounting II.

**ACCT 428 Taxation**

A broad introduction to federal income tax law and preparation. Covered in detail is the taxation of individuals including taxable income determinations, deductions, and gain or loss on exchange of property. The course also introduces taxation issues faced by corporations and partnerships.

Prerequisite: ACCT 220 Introduction to Financial Accounting.

**ACCT 429 Auditing**

A study of auditing concepts, theory, objectives and practices. Topics include generally accepted auditing standards, internal control, various auditing systems, professional ethics, and the legal liabilities of the auditor.

Prerequisites: ACCT 321 Intermediate Accounting I and QUAN 202 Statistical Analysis for Business and Economics.

**BUSINESS INFORMATION SYSTEM COURSE DESCRIPTIONS****BUIS 200 Introduction to Business Systems**

An introductory study of information systems from a business problem-solving perspective. Topics include technical and organizational foundations of information systems, the use of information systems to support critical business operations and to achieve strategic objectives, common approaches to building information systems, and management of information system resources. The course emphasizes the use of computers to analyze, coordinate, and solve organizational decision-making problems.

**Note:** Students may not receive credit for both BUIS 200 Introduction to Business Systems and 12.208 Microcomputer Applications in Business.

**BUIS 411 Information Systems Research**

An overview of theories, methods and tools used in Information Systems research. Students conduct literature reviews, gather empirical materials and present findings using written and presentation formats acceptable in the field. Students develop skills to evaluate specific studies and identify their limitations. In addition to conducting original research, students learn to analyze business cases. Students are introduced to models and approaches used to analyze business cases, and perform business case analysis using these tools. Students share their findings through a written report and oral presentation. Research and case topics include IT and data security and regulation, ethical use of data and technology, emerging and disruptive technology.

Prerequisites: Junior Standing, MGMT 280 Organizational Behavior, a 300- level course in Computer Science, and, either QUAN 202 Statistical Analysis for Business and Economics or MATH 117 Statistics.

**BUIS 460 Information Systems Management**

A team-based and problem-based application of theories and industry practices used to evaluate, design and implement technology solutions to business problems. Assignments are designed to develop client management, project management, systems development, and presentation and communication skills. Students work in teams to complete projects based upon actual organizations or using business cases. Student projects may be evaluated by an industry panel. Students define a problem statement and justification, requirements analysis, and preliminary and final designs. Course topics may include software and hardware evaluation, strategic use of technology, service level agreements, project planning and control, software sources and licensing, outsourcing, vendor management, ROI requirements and cost/benefit analysis.

Prerequisites: Senior Standing, ACCT 220 Introduction to Financial Accounting, a 300-level course in Computer Science, and MGMT 280 Organizational Behavior.

**ENTREPRENEURSHIP COURSE DESCRIPTIONS****ENTR 300 Entrepreneurship: Starting Your Business**

A study of the challenges and opportunities of starting a business. Students adopt the tools necessary to design and develop a new business and engage their creative thinking capabilities. Students develop a business plan which brings together the marketing, operations, management, funding, accounting and legal aspects of business start-ups. Real world entrepreneurs in different fields such as fashion design and retailing, information and technology, and computer science may be featured as guest speakers. Student readings include books on start-up tools, cases, as well as autobiographies of several successful entrepreneurs.

Prerequisites: ENGL 110 Expository Writing, math core, and Sophomore Standing.

**ENTR 301 Cultivating and Managing Innovation**

An exploration of factors that support successful innovations. Students seek answers to the following questions: What drives successful innovations? How is innovation best spurred within organizations? What techniques are best in managing in innovative organizations? Why are some regions like Massachusetts able to stay more innovative over time? These questions, and others, are addressed in this course designed to help students be creative in their jobs, inspire start-ups, and/or manage people and teams charged with being innovative. The course explores where good ideas come from, and exposes students to the breakthrough practices of companies and regions. Students learn how to locate and evaluate resources. Case studies focus on recent inventions. Students also consider social innovation, and the venture philanthropy approach. Massachusetts innovators may give guest lectures. Students may learn, or improve, their skills in how to make presentations based on research.

Prerequisites: ENGL 110 Expository Writing, General Education Mathematics Core Requirement, and Sophomore Standing.

**ENTR 302 Social Entrepreneurship**

A study of starting, and/or working in, an entrepreneurial organization to meet a social need whether globally or in the United States. What are key steps and challenges for the student in learning how to make this happen? Hybrids, poverty, sustainability, venture philanthropy, healthcare are all part of what a student needs to understand to challenge convention, and help make changes small and large. Social enterprises in Massachusetts as well as globally are considered and analyzed as case studies. Guest speakers with social entrepreneur experience – locally and, perhaps globally give guest lectures to help develop students understanding on the national and global social entrepreneur issues. Students explore the connection of social enterprises to Corporate Social Responsibility (CSR) programs. Projects and business plans will be developed by students as part of the assessment.

Prerequisites: ENGL 110 Expository Writing, General Education Mathematics Core Requirement, and Sophomore Standing.

**ENTR 495 Entrepreneurship Internship Practicum**

A supervised practical experience in the Framingham State University Entrepreneur Innovation Center. Students are required to attend a seminar component to discuss relevant readings and experiences. Internship tasks vary based upon activities in the lab and may include idea formulation and revision, fundraising/finance, working with lawyers on Intellectual Property, family businesses, and expansion of a mini-business plan into a full business plan. Each student works with the instructor one-on-one on a regular basis in a parallel process to the seminar to set up, implement, and review specific projects with entrepreneurs. Interested students must complete an application process prior to the end of the previous semester.

Prerequisites: Sophomore Standing and approval of instructor.

## FINANCE COURSE DESCRIPTIONS

### **FINA 100 Principles of Financial Literacy (Gen.Ed. Domain II-A)**

An introduction to the financial literacy tools used in understanding the principles and practices of money management, consumer credit, savings, investments, taxation, and consumer protection. Additional topics include: budgeting, borrowing, consumer loans and debt management, financial solvency, inflation, insurance, housing, fraud and deception, and basic retirement planning. *NOTE: Students may not receive credit for both this course and CONS 210 Consumer Economics.*

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement exam.

### **FINA 248 Managerial Finance**

The study of the relationship between the investment and financing decisions made by firms. Main topics include working capital and fixed asset management contained within a broad overview of the type of assets a company acquires, the reasons for acquiring them, and the sources and costs of financing the assets. Concepts are discussed primarily in accounting terms, and mathematical relationships are used as a focal point for discussion.

Prerequisite: One (1) of the following courses: ECON 101 Principles of Macroeconomics, ECON 102 Principles of Microeconomics, ACCT 220 Introduction to Financial Accounting, MATH 107 Business Statistics, MATH 117 Introduction to Statistics, or MATH 219 Calculus I; or permission of the instructor.

### **FINA 300 Fundamentals of Financial Planning and Insurance**

An introduction to the field of personal financial management and planning, focusing on the tools individuals and families employ to manage their financial affairs. Real world topics covered may include income tax planning, cash and asset management, risk management and insurance, employee benefits, retirement planning, and estate planning. The course also covers details of insurance planning including life, health, disability, homeowners, auto and other property and liability insurance.

Prerequisites: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

### **FINA 301 Financial Markets and Institutions**

An introduction to the U.S. financial system including banks, insurance companies, and capital market institutions. Considered are the various aspects of financial instruments, institutions, and markets as well as the economic, technological and legal framework in which they operate.

Prerequisite: Sophomore Standing and One (1) of the following courses: ECON 101 Principles of Macroeconomics, ECON 102 Principles of Microeconomics, ACCT 220 Introduction to Financial Accounting, MATH 107 Business Statistics, MATH 117 Introduction to Statistics, or MATH 219 Calculus I; or permission of the instructor.

### **FINA 321 Retirement and Estate Planning**

An examination of financial planning for retirement and estate. The main topics of retirement planning covered are setting financial objectives for retirement, planning for adequate retirement income, social security and other governmental benefits, understanding qualified and non-qualified plans, pre- and post-retirement investment planning, planning for long-term care, and planning for incapacity. Additional topics of estate planning include the necessity, objectives and techniques of estate planning, the federal estate, gift, and income tax rules and how to use them to benefit clients, the consequences of intestacy, and the uses of wills.

Prerequisite: FINA 300 Fundamentals of Financial Planning and Insurance.

### **FINA 357 Multinational Finance**

An analysis of the wide array of opportunities and risks that the global environment offers to multinational participants. Topics such as flow of funds, international payments, currency markets and international parity conditions are introduced. The international environment and the management of associated risks are also discussed.

Prerequisite: One (1) of the following courses: ECON 101 Principles of Macroeconomics, ECON 102 Principles of Microeconomics, ACCT 220 Introduction to Financial Accounting, MATH 107 Business Statistics, MATH 117 Introduction to Statistics, and MATH 219 Calculus I; or permission of the instructor.

**FINA 400 Case Studies in Financial Planning**

An application of financial planning concepts through case studies, including investment analysis, retirement and employee benefits planning, insurance and income tax planning and estate planning. Students are introduced to the wide range of financial planning tools and techniques available today to the professional financial planner as well as to the individual. Students develop skills necessary to analyze case studies. By the end of the course, the student should be able to construct a sensible and workable financial plan for a client.

Prerequisite: Junior standing and FINA 300 Fundamentals of Financial Planning and Insurance.

**FINA 420 Financial Theory and Modeling**

An introduction to the theoretical and practical review of key topics in finance such as optimization, asset valuation, risk management and derivative pricing. Students analyze and solve a diverse set of finance problems, mathematically and through the development of spreadsheet models. The course emphasizes the acquisition of critical thinking skills, proficiency in research and use of financial data, and command of computer software.

Prerequisites: BUIS 200 Introduction to Business Systems, FINA 248 Managerial Finance, and QUAN 202 Statistical Analysis for Business and Economics (may be taken concurrently); or permission of instructor.

**FINA 431 Corporate Finance**

The study of the theory and application of the principles underlying the relationships between long-run investments and financing decisions made by the firm. Included are agency theory, long-term planning and forecasting, the seminal theoretical foundations of Modigliani Miller, as well as the use of the CAPM and APT in capital budgeting. Application of the principles is done using the mini-case method.

Prerequisite: FINA 248 Managerial Finance.

**FINA 445 Investments**

The study of the process whereby investors choose individual securities and combine them into portfolios. The major topics are the fundamentals of security analysis, including the instruments and the markets for securities, and the basics of portfolio analysis from Markowitz to APT. A discussion of derivative securities is also included. Mathematical descriptions of financial instruments and portfolios are widely employed.

Prerequisite: FINA 248 Managerial Finance.

**FINA 474 Topics in Finance**

An in-depth evaluation of the current trends and changes that are occurring in finance from the perspective of both the investor and the firm. The study involves student application of techniques derived from the evolutionary changes that are being made in financial management and investment analysis. The focus is on capital planning and asset portfolio formation. Case studies and projects outside the classroom are utilized.

Prerequisite: FINA 431 Corporate Finance.

**MANAGEMENT COURSE DESCRIPTIONS****MGMT 215 Legal Environment of Business**

A study of the interrelationships among business, government, and society as reflected in the legal system in which firms operate. In addition to examining specific laws and legal issues, such as business transactions, employer-employee relations, government regulation and consumer law, students become familiar with the way in which laws develop and change. Special emphasis is on the social and ethical issues which arise in business law.

**MGMT 280 Organizational Behavior**

An in-depth study of the application of management theory to the behavior of individuals and groups in organizations. Topics in the course include: organizational culture, decision making, teamwork, organizational structure and design, change management, motivation, job design, leadership, communication and power in organizations.

Prerequisite: Sophomore standing.

**MGMT 300 Doing Business Abroad**

An examination of the critical success factors for doing business in a foreign country. In this global seminar course, students prepare to conduct business and travel to a foreign country by exploring, in the classroom, all the major international business areas including marketing, finance, operations and human resources related to the country of study. Cross cultural differences and business etiquette are also emphasized. The optional travel portion of the course is typically an 8-14 day academic trip to a selected country where students meet with businesses to practice what they have learned and

experience the local culture by attending selected events. If travel is selected, travel costs are additional. Note: A student can receive credit for this course more than once if the country studied is different. However, students may receive credit for this course toward the major only once.

Prerequisites: Sophomore standing and completion of any course from the Business Administration department.

### **MGMT 301 Sport Management**

An exploration of the management principles, procedures, and operations of professional sports, collegiate athletics, and recreational organizations. Elements for successful administration of sport and recreation organizations are included. Topics, such as leading, planning, marketing, financing, and facility and event management are introduced.

Prerequisite: MGMT 280 Organizational Behavior or MRKT 181 Marketing Principles.

### **MGMT 308 Managing Across Cultures**

An examination of how cultural difference impacts business interactions. Students learn techniques for interacting effectively with people from different countries and cultures who are part of the same multinational company and how to identify and respond to cultural differences when negotiating across cultures and working with multicultural teams. Topics include the nature and dimensions of culture, managing cultural differences, the dynamics of intercultural communication, and global perspectives on leadership, motivation, and decision making.

Prerequisite: MGMT 280 Organizational Behavior.

### **MGMT 321 Sport Facility and Event Management**

An examination of the principles and practices of operating sport and recreation facilities and managing sport related events. Designing, planning, controlling and supervising of sport facilities and sport event logistics are covered. Box office management, security, safety, medical services, housekeeping, maintenance, concessions, merchandise, risk management, insurance, media marketing, sponsorship, hospitality, and assessment of sporting events are included.

Prerequisite: MGMT 301 Sport Management.

### **MGMT 372 Operations Management**

An analysis of methods to effectively produce and distribute goods and services provided by profit and nonprofit organizations. Topics covered include supply chain management, process selection and design, production planning and control, quality control, prices and costs, project management, and the technology of materials and equipment.

Prerequisites: MGMT 280 Organizational Behavior, and QUAN 202 Statistical Analysis for Business and Economics or MATH 217 Business Calculus.

### **MGMT 381 Human Resource Management**

A study of the personnel function within profit and non-profit organizations. The course covers the procurement, development, compensation, integration and maintenance of personnel.

Prerequisite: MGMT 280 Organizational Behavior.

### **MGMT 401 Project Management**

An examination of the fundamentals of project management, the basics of managing complex projects across multiple functions. Successful project managers possess the skills to manage people, schedules, risks, and resources to produce a desired outcome. Students learn the skills and tools of project management with a practical, hands-on approach. The course guides students through many of the fundamental project management tools and behavioral skills required for profit and nonprofit organizations. Topics include common tools and frameworks used in industry, such as Six Sigma®.

Prerequisite: MGMT 372 Operations Management.

### **MGMT 409 Supply Chain Management**

An examination of basic principles of supply chain management and techniques used to analyze various aspects of logistics systems. The course utilizes key tactics such as risk pooling and inventory placement, integrated planning and collaboration, and information sharing. Key concepts such as lean management, inventory management, communication, warehousing, distribution, and facility location are examined as an integral part of modern business. The course addresses insights, concepts, practical tools, and decision support systems that are important for the effective management of the supply chain.

Prerequisite: MGMT 372 Operations Management.

**MGMT 412 International Business**

A study of the complexity of managing an organization with international interests. Topics discussed include political, economic, and cultural environments; developing planning systems and strategies to ensure international competence in finance, marketing, human resources, production, and societal response in an international setting. Cases may be used to help develop skills in the above area.

Prerequisite: MRKT 181 Marketing Principles, MGMT 280 Organizational Behavior, and FINA 248 Managerial Finance.

**MGMT 485 Business Policy and Strategy**

An examination of the formulation of corporate strategy in business enterprises with emphasis on the economic, political, and social influences on strategy. The course focuses on application of corporate planning tools and analysis of the general manager tasks as an implementer of corporate strategy. Problems which affect the character and success of the total enterprise are examined. Cases are drawn from companies of various sizes in various industries. This course is open only to majors in the Business Department or to others by permission of the instructor.

Prerequisite: BUIS 200 Introduction to Business Systems, ACCT 221 Managerial Accounting, MRKT 181 Marketing Principles, MGMT 280 Organizational Behavior, and FINA 248 Managerial Finance, Senior standing.

**MGMT 490 Independent Study in Business**

Under the direction of a faculty member, the student pursues reading and research on a selected topic business.

Prerequisite: Permission of the instructor.

**MGMT 495 Internship in Business**

A supervised practical experience in a public or private organization appropriate to the student's program of study. Before registering for the internship the student must submit a proposal outlining the internship and showing how it integrates with the student's academic program. The internship requires written documentation of the student's experiences and a research project or critical evaluation of the experience. Students may earn up to four (4) course-credits. The internship is not intended to satisfy or substitute for any of the courses required for the major.

Prerequisite: A minimum of 3.0 GPA overall and 3.20 in department courses and approval of the internship supervisor. The grade point requirement may be waived at the discretion of the intern's internship supervisor.

**MARKETING COURSE DESCRIPTIONS****MRKT 181 Marketing Principles**

An examination of marketing functions, the activities of producers, wholesalers, retailers and other middlemen, the channels of distribution, integration of the marketing functions, price policies and government regulation. Special emphasis is given to the aspect of marketing management.

**MRKT 301 Brand Management**

An analysis of the main factors determining success of a brand in the market and is an introduction to techniques and tools necessary for management of brands. Using a consumer centric approach, students develop the ability to think creatively and critically about the strategies and tactics involved in building, leveraging, defending, and sustaining inspired brands. The importance of brand, brand building, brand definition evaluation, brand positioning, strength and profitability, evaluating brand maturity, repositioning of brands, rebranding, the link between corporate brand image and corporate identity are discussed.

Prerequisite: MRKT 181 Marketing Principles.



**MRKT 308 Digital and Social Media Marketing**

A study of technology and digital media marketing. Students explore how digital and social marketing affect the marketing of goods and services and how new mediums deliver value to the customer using the latest technological innovations. This course examines the latest trends in digital marketing, such as mobile marketing and how the mobile platform can be used for branding purposes and enhancing customer relationships. Students explore topics such as branding and advertising via mobile phones, online social networks and communities, technology adoption in global emerging markets, and how the Internet empowers customers and enables firms to engage in customer advocacy. Students examine technological innovations and the ethical concerns that arise with technology usage, such as privacy and security issues, identity theft, and the role of trust in digital marketing.

Prerequisites: BUIS 200 Introduction to Business Systems or any CSCI course; and MRKT 181 Marketing Principles.

**MRKT 310 Marketing Research**

A coverage of the fundamentals of the market research process and how marketing research is used to solve marketing problems. Topics include research design, data collection and analysis techniques, and interpretation and implementation of research findings.

Prerequisite: MATH 107 Business Statistics or MATH 117 Introduction to Statistics; MRKT 181 Marketing Principles; or permission of the instructor.

**MRKT 313 Promotional Strategy**

An examination of advertising and promotion principles from an integrated marketing communications perspective. Topics include consumer and market analysis, creative strategy, media selection, promotional budgeting, campaign evaluation, and agency relations.

Prerequisite: MRKT 181 Marketing Principles.

**MRKT 318 International Marketing**

An examination of the opportunities and challenges facing business organizations in international markets. Topics include the international marketing process, the importance of effective international marketing communication, and the formation and execution of international marketing strategies. Special emphasis is placed on cultural, social, legal, political, and organizational forces that influence international marketing operations.

Prerequisite: MRKT 181 Marketing Principles.

**MRKT 320 Retail and Business Marketing**

An analysis of the retail to consumer (B2C) and business to business (B2B) marketing processes, the environment within which each operates, and the institutions and functions that are performed within each segment. Topics include buying, merchandise and assortment planning, layout, pricing and promotion, income statement and cash flow analysis, customer relationship management, sustaining brand identity, the nature of buying and selling between businesses, developing marketing strategies, evaluating the elements of the marketing mix, and personal selling.

Prerequisite: MRKT 181 Marketing Principles.

**MRKT 324 Sports Marketing**

An examination and application of marketing principles in the area of sports. Students develop an understanding of the marketing concepts and theories that apply to sports and sporting events. Topics include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports marketing plans for the professional and collegiate levels. Promotional plans, use of sport sponsorships by commercial enterprises to help market products and services, event evaluation and management techniques are also covered. Class projects emphasize original research into sports marketing topics, with the potential to collaborate with industry professionals. Note: Students cannot receive credit for both this course and ECON 290/390 Topics in Economics and Business.

Prerequisite: MRKT 181 Marketing Principles.

**MRKT 375 Sales**

An examination of the importance of personal selling and distribution. The course focuses on recruiting, organizing, and motivating the sales force; forecasting; budgeting; selling; control; and cooperation with channel distribution members.

Prerequisites: MRKT 181 Marketing Principles.

**MRKT 402 Strategic Marketing**

An examination of the elements of marketing strategy within the context of an effective overall business strategy. Topics include developing a market-focused culture, customer and competitor analysis, value delivery, pricing, relationship management, brand management, and marketing communication. Students strategically analyze a firm's activities from the marketer's point of view, including marketing strategy formulation, implementation and control, and assessment of the functional areas of marketing (product, pricing, distribution and promotion).

Prerequisites: MRKT 181 Marketing Principles and one (1) 300-level management or marketing course.

**MRKT 410 Advanced Marketing Research**

A study of marketing using advanced qualitative and quantitative research methods. Students apply their knowledge and skills learned in MRKT 310 Marketing Research. Students design, develop and deploy qualitative and quantitative survey instruments, code and tabulate results, conduct statistical analyses, analyze findings, and make recommendations based on their research. Research findings are analyzed using appropriate statistical techniques. Verbal presentation skills are emphasized and written reports are prepared using APA (American Psychological Association)-style format.

Prerequisite: MRKT 310 Marketing Research.

# Chemistry and Food Science

## Chair: Catherine Dignam

Associate Professor: Steven Cok, Catherine Dignam,  
Sarah J. Pilkenton

Assistant Professors: Emmanouil Apostolidis, Dwayne Bell,  
Michael Block, Jesse Marcum, Vinay Mannam,  
Ishara Mills-Henry, Argyroula Stamatopoulou,  
Shelli Waetzig

Instructor: Lisa Savini

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

The Department of Chemistry and Food Science is unique in that it offers strong majors in Biochemistry, Chemistry, and Food Science. The programs complement one another, producing Food Science majors with an exceptionally strong background in chemistry and providing Chemistry and Biochemistry majors with the opportunity to take electives in more applied areas such as food chemistry and food analysis. Undergraduate research opportunities are also enhanced by the combination of these program areas. An excellent undergraduate education is provided by the structured curricula for the Chemistry, Biochemistry and Food Science majors coupled with a strong general education component. The strength of these programs is clearly indicated by the excellent graduate school placement, achievement records, and employment opportunities enjoyed by graduates.

## Pre-Health Program

A pre-health curriculum for pre-medical, pre-dental, and pre-veterinary studies is also offered in cooperation with the Biology Department.

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Sciences) and laboratory requirement are satisfied through the completion of the Biochemistry, Chemistry, and Food Science majors.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## BIOCHEMISTRY MAJOR (U\_BC)

The Biochemistry major has two concentrations: an American Chemical Society (ACS) approved concentration and a general biochemistry concentration. Both concentrations in Biochemistry allow students to select courses covering a wide range of topics in chemistry and biology.

## Major Core Requirements (15)

The following fifteen (15) core requirements are required of Biochemistry majors in all concentrations:

BIOL 130 Principles of Biology **or**  
BIOL 161 Introduction to Cell and Molecular Biology

BIOL 208	Genetics
BIOL 260	Cell Biology
CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 208	Organic Chemistry II
CHEM 301	Biochemistry I
CHEM 303	Physical Chemistry I
CHEM 321	Instrumental Analysis
CHEM 332	Biochemistry II
MATH 219	Calculus I (Gen.Ed. Domain II-A)
MATH 220	Calculus II
PHYS 211	Principles of Physics I
PHYS 212	Principles of Physics II

## **CONCENTRATIONS**

All students majoring in Biochemistry must choose one (1) of the two (2) concentrations: ACS-Approved Program or General Biochemistry.

### **AMERICAN CHEMICAL SOCIETY APPROVED CONCENTRATION (UBCA)**

#### **Concentration Requirements (4):**

CHEM 401	Inorganic Chemistry
CHEM 480	Chemical Research I
CHEM 481	Chemical Research II

#### **Choose one (1) elective course from:**

BIOL 262	Molecular Biology
CHEM 304	Physical Chemistry II
CHEM 390	Special Topics in Chemistry
FDSC 405	Food Analysis
FDSC 408	Food Chemistry

### **GENERAL BIOCHEMISTRY CONCENTRATION (UBCG)**

#### **Concentration Requirements (4):**

#### **Choose four (4) elective courses from:**

BIOL 262	Molecular Biology
BIOL 307	Microbiology
BIOL 340	Immunology
BIOL 371	Medical Microbiology
BIOL 409	Developmental Biology
BIOL 453	Seminar in Recombinant DNA Technology

CHEM 304	Physical Chemistry II
CHEM 390	Special Topics in Chemistry
CHEM 401	Inorganic Chemistry
CHEM 480	Chemical Research I
CHEM 481	Chemical Research II
FDSC 405	Food Analysis
FDSC 408	Food Chemistry

## **CHEMISTRY MAJOR (U\_CH)**

The Chemistry major offers two concentrations: one is approved by the American Chemical Society (ACS) and the other is a general chemistry concentration. The ACS-approved curriculum allows flexibility to specialize in a particular area through choice of the elective, the advanced course, and the senior research project. The General Chemistry concentration requires a minor.

### **Major Core Requirements (8)**

The following eight (8) core requirements are required of Chemistry majors in all concentrations:

CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 208	Organic Chemistry II
MATH 219	Calculus I (Gen.Ed. Domain II-A)
MATH 220	Calculus II
PHYS 211	Principles of Physics I
PHYS 212	Principles of Physics II

## **CONCENTRATIONS**

All students majoring in Chemistry must choose one (1) of the two (2) concentrations: ACS-Approved Program or General Chemistry.

### **AMERICAN CHEMICAL SOCIETY APPROVED CONCENTRATION (UCHA)**

#### **Concentration Requirements (11):**

CHEM 301	Biochemistry I
CHEM 303	Physical Chemistry I
CHEM 304	Physical Chemistry II
CHEM 321	Instrumental Analysis
CHEM 401	Inorganic Chemistry
CHEM 480	Chemical Research I
CHEM 481	Chemical Research II
CHEM ___*	An Advanced Chemistry course
CSCI ___	Two (2) Semesters of

CSCI \_\_\_\_ Computer Science

MATH 221 Calculus III

*\*The course in advanced chemistry can be selected from the list below depending upon interest and graduate study pursuits:*

CHEM 332 Biochemistry II

CHEM 390 Special Topics in Chemistry

FDSC 405 Food Analysis

FDSC 408 Food Chemistry

## GENERAL CHEMISTRY CONCENTRATION (UCHG)

### Concentration Requirements (6):

CHEM 303 Physical Chemistry I

CHEM 321 Instrumental Analysis

CHEM 401 Inorganic Chemistry

CSCI 120 Introduction to Information Technology

### Choose two (2) chemistry elective courses from:

CHEM 301 Biochemistry I

CHEM 304 Physical Chemistry II

CHEM 390 Special Topics in Chemistry

FDSC 405 Food Analysis

FDSC 408 Food Chemistry

*NOTE: A minor is required with the General Chemistry concentration.*

## PROGRAM IN EDUCATION

Chemistry majors with a concentration in either General Chemistry or Biochemistry may minor in secondary education to obtain Initial licensure at the high school level. Students choosing to minor in secondary education must take CHEM 301 Biochemistry I.

## FOOD SCIENCE MAJOR (U\_FS)

All students majoring in Food Science must choose one (1) of the two (2) concentrations: Applied Food Science or Food Science and Technology.

### Major Core Requirements (13)

The following thirteen (13) core requirements are required of Food Science majors in all concentrations:

BIOL 130 Principles of Biology (Gen.Ed. Domain II-B)

BIOL 235 Principles of Human Physiology

BIOL 307 Principles of Microbiology

CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 208	Organic Chemistry II
CHEM 301	Biochemistry I
FDSC 161	Introduction to Food Science and Technology <b>or</b>
	FDSC 151 Principles of Food Science
FDSC 351	Food Engineering and Processing
FDSC 405	Food Analysis
FDSC 408	Food Chemistry
MATH 208	Biostatistics <b>or</b>
	MATH 117 Introduction to Statistics (Gen.Ed. Domain II-A)

## **Food Science Concentrations**

### **APPLIED FOOD SCIENCE CONCENTRATION (UFSA)**

#### **Concentration Requirements (2):**

MATH 200	Precalculus (Gen.Ed. Domain II-A) <b>or</b>
	MATH 219 Calculus I (Gen.Ed. Domain II-A)
PHYS 201	Introductory Physics

*NOTE: A minor is required with the Applied Food Science concentration.*

### **FOOD SCIENCE AND TECHNOLOGY CONCENTRATION (UFST)**

#### **Concentration Requirements (8):**

CHEM 303	Physical Chemistry I
FDSC 413	Food Safety and Microbiology
FDSC 495	Food Industrial Practicum <b>or</b>
	FDSC 490 Directed Study in Food Science <b>or</b>
	CHEM 304 Physical Chemistry II
MATH 219	Calculus I (Gen.Ed. Domain II-A)
MATH 220	Calculus II
NUTR 374	Human Nutrition Science
PHYS 211	Principles of Physics I (Gen.Ed. Domain II-B,Lab)
PHYS 212	Principles of Physics II

## MINORS

### MINOR IN BIOCHEMISTRY (6 COURSES)

CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 208	Organic Chemistry II
CHEM 301	Biochemistry I
CHEM 332	Biochemistry II

### MINOR IN CHEMISTRY (6 COURSES)

CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 208	Organic Chemistry II

**Choose two (2) of the following courses:**

CHEM 301	Biochemistry I
CHEM 303	Physical Chemistry I
CHEM 304	Physical Chemistry II
CHEM 321	Instrumental Analysis
CHEM 390	Special Topics in Chemistry
CHEM 401	Inorganic Chemistry

### MINOR IN FOOD SCIENCE (7 COURSES)

Required courses:

CHEM 107	Principles of Chemistry
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 300	Principles of Biochemistry
FDSC 151	Principles of Food Science <b>or</b> NUTR 364 Experimental Study of Food

Choose two (2) of the following:

FDSC 351	Food Engineering and Processing
FDSC 405	Food Analysis
FDSC 408	Food Chemistry
FDSC 413	Food Safety and Microbiology



**CHEMISTRY COURSES APPROPRIATE FOR  
GENERAL EDUCATION (GEN. ED.)**

<b>Courses</b>		<b>Domain</b>
CHEM 101	Chemistry of Life	II-B
CHEM 103	Introductory Chemistry	II-B, Lab
CHEM 107	Principles of Chemistry	II-B, Lab
CHEM 108	Principles of Chemistry and Quantitative Analysis	II-B, Lab
CHEM 131	Science - Environment and Health	II-B, Lab
FDSC 151	Principles of Food Science	II-B
FDSC 161	Introduction to Food Science and Technology	II-B, Lab

**CHEMISTRY COURSE DESCRIPTIONS****CHEM 101 The Chemistry of Life (Gen. Ed. Domain II-B)**

An exploration of the origin of life on a molecular basis; a familiarization with the basic chemistry of living organisms and their environment; an understanding of the laws that govern life; and a discussion on the fate of life as a consequence of drugs and man's chemical pollution of the earth's atmosphere, soil and water. Designed as a terminal **non-laboratory** course for the liberal arts non-science student.

**CHEM 103 Introductory Chemistry (Gen. Ed. Domain II-B, Lab)**

A one-semester introductory chemistry course focusing on the fundamental core concepts of inorganic chemistry. Topics include scientific measurements, atomic-molecular theory, properties of the elements, chemical bonding, intermolecular attractions, energy and matter, liquids, solids, and gases, solutions, basic types of chemical reactions, chemical equilibrium, acids and bases, and nuclear chemistry. These core concepts are explored and expanded upon during weekly laboratory sessions. **Laboratory (3 hours)**. Note: This course does not satisfy the Chemistry major requirement or the Chemistry minor requirement. Students wishing to pursue advanced study in biology, chemistry, engineering, food science, and the nutrition and dietetics concentration for the food and nutrition major should take CHEM 107 Principles of Chemistry and CHEM 108 Principles of Chemistry and Quantitative Analysis.

Corequisite: A 100-level course in mathematics or eligibility to enroll in MATH 200 Precalculus.

**CHEM 107 Principles of Chemistry (Gen. Ed. Domain II-B, Lab)**

A study of the fundamental principles of chemistry designed to meet the needs of science majors as well as those pursuing a prehealth curriculum or those seeking a rigorous introduction to chemistry. Topics covered include unit conversions and dimensional analysis, history and structure of the atom, stoichiometry, chemical reactions, solutions, periodicity, and molecular geometry and bonding theories. The laboratory teaches techniques of chemical experimentation including chemical hygiene, the scientific method and keeping a laboratory notebook. **Laboratory (3 hours)** meets three hours per week.

Corequisite: MATH 123 College Algebra or eligibility to enroll in MATH 200 Precalculus.

**CHEM 108 Principles of Chemistry and Quantitative Analysis (Gen. Ed. Domain II-B, Lab)**

A continuation of Principles of Chemistry and is designed to meet the needs of science majors as well as those pursuing a prehealth curriculum. Topics include gas laws, equilibrium, kinetics, thermodynamics, and acid/base chemistry. Laboratory focuses on techniques of quantitative analysis: preparations of solutions, wet chemical analysis using volumetric glassware, chemical measurements using pH electrodes and spectrophotometers, data analysis and laboratory report writing. **Laboratory (4 hours)**.

Prerequisites: Completion of CHEM 107 Principles of Chemistry with a minimum grade of C- (1.70) and either completion of MATH 123 College Algebra with a minimum grade of C- (1.70) or eligibility to enroll in MATH 200 Precalculus.

**CHEM 131 Science - Environment and Health (Gen. Ed. Domain II-B, Lab)**

An integrative **laboratory** science course to prepare non-science majors to make informed decisions relating to the environment, health, and technology. Central principles of physical, environmental, and biological chemistry are discussed, with application of these principles to current events. Assignments and laboratory sessions apply theoretical principles to everyday life. **Laboratory (3 hours).**

Prerequisite: MATH 123 College Algebra is recommended background.

**CHEM 201 Introductory Organic Chemistry and Biochemistry**

A one-semester introductory chemistry course intended to provide the fundamental core concepts of organic chemistry and biochemistry. Core concepts include identification of organic functional groups and their most common reactions, and identification of biological compounds such as carbohydrates, lipids, proteins, enzymes, and nucleic acids as well as their properties and metabolic pathways. These core concepts are explored and expanded upon during weekly laboratory sessions. **Laboratory (3 hours).**

Prerequisite: CHEM 103 Introductory Chemistry or CHEM 107 Principles of Chemistry.

**CHEM 207 Organic Chemistry I**

An in-depth course which covers structure, properties, preparation, and reactions of the principal classes of organic compounds. The chemistry of aliphatic hydrocarbons, alkenes, alkynes, and alkyl halides is introduced. Substitution, elimination, and addition reactions are covered in detail, with an emphasis on reaction mechanisms. Laboratory introduces the standard techniques (distillation and reflux, crystallization and melting points, extraction, column and gas chromatography, IR spectroscopy and Mass Spectrometry) used for the synthesis, purification and identification of organic compounds and illustrates some typical reactions of alkanes, alkenes and alcohols. **Laboratory (4 hours).**

Prerequisite: Completion of CHEM 108 Principles of Chemistry and Quantitative Analysis with a minimum grade of C- (1.70).

**CHEM 208 Organic Chemistry II**

A continuation of CHEM 207 Organic Chemistry I. Aromatic compounds, alcohols, aldehydes, ketones, amines, carboxylic acids and their derivatives are studied. Aromatic substitution, acyl transfer, and carbonyl condensation reactions are covered, with emphasis on understanding reaction mechanisms and synthetic applications. Laboratory work reinforces synthetic techniques, (preparation, purification, and identification) including  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectroscopy. **Laboratory (4 hours).**

Prerequisite: CHEM 207 Organic Chemistry I.

**CHEM 300 Principles of Biochemistry**

A study of the principles of biochemistry including the chemistry of carbohydrates, lipids, nucleic acids, amino acids and proteins. Topics covered include the structure and function of biological compounds, energy transformation, bioenergetics, enzyme function and kinetics and the principles of metabolic regulation. Emphasis is placed on the chemistry of macronutrients, vitamins and coenzymes. The underlying theme of this course is to introduce the concept of homeostasis and how it relates to intermediary metabolism of carbohydrates, fats and nitrogen-containing materials such as amino acids, proteins and related compounds. Note: This course is designed to serve the needs of students whose program requires only CHEM 207 Organic Chemistry I. Note: Students may not receive credit for both this course and CHEM 301 Biochemistry I. **Laboratory (4 hours).**

Prerequisites: BIOL 130 Principles of Biology or BIOL 161 Introduction to Cell and Molecular Biology; and completion of CHEM 207 Organic Chemistry I with a minimum grade of C- (1.70).

**CHEM 301 Biochemistry I**

A study of the chemical aspects of biological activity emphasizing the structure and function of carbohydrates, lipids, nucleic acids, amino acids and proteins. Topics include the study of protein function, enzymes and bioenergetics and how they relate to the intermediary metabolism of carbohydrates, fats and proteins. The underlying theme of this course is not merely a cataloging of the structure and metabolism of biological compounds, but rather is an understanding of the cellular and molecular logic of living organisms. Note: Students may not receive credit for both this course and CHEM 300 Principles of Biochemistry. **Laboratory (4 hours).**

Prerequisites: BIOL 130 Principles of Biology or BIOL 161 Introduction to Cell and Molecular Biology; and completion of CHEM 208 Organic Chemistry II with a minimum grade of C- (1.70).

### **CHEM 303 Physical Chemistry I**

An introduction to the principles of physical chemistry. Topics covered include chemical thermodynamics, solutions, chemical equilibrium, electrochemistry, transport properties, and phenomenological chemical kinetics. **Laboratory (4 hours).**

Prerequisites: CHEM 108 Principles of Chemistry and Quantitative Analysis, PHYS 212 Principles of Physics II, and MATH 220 Calculus II; or permission of the instructor.

### **CHEM 304 Physical Chemistry II**

A continuation of CHEM 303 Physical Chemistry I. Topics covered include an introduction to quantum chemistry, atomic and molecular structure, spectroscopy, kinetic molecular theory, and theoretical chemical kinetics. **Laboratory (4 hours).**

Prerequisite: CHEM 303 Physical Chemistry I or permission of the instructor.

### **CHEM 321 Instrumental Analysis**

An introduction to the theory and application of common chemical instrumentation with associated laboratory. Topics include spectroscopic methods (atomic and molecular absorption and emission, nuclear magnetic resonance, and mass spectrometry), electrochemical methods (potentiometry and voltammetry), and chromatographic methods (GC, HPLC). **Laboratory (4 hours).**

Prerequisites: CHEM 208 Organic Chemistry II and PHYS 212 Principles of Physics II.

### **CHEM 332 Biochemistry II**

A continuation of CHEM 301 Biochemistry I, which covers basic nucleotide chemistry. Informational biomolecules, nucleotide metabolism, cell signaling and regulatory mechanisms, molecular physiology, protein structure and catalysis, regulation of biochemical processes, and integrated metabolic systems are studied in-depth. Laboratory emphasizes structural analysis of DNA and proteins, isolation and identification of DNA and proteins and control of gene expression. **Laboratory (4 hours).**

Prerequisites: CHEM 208 Organic Chemistry II and CHEM 301 Biochemistry I.

### **CHEM 390 Special Topics in Chemistry**

An in-depth examination of topics in chemistry at a level beyond that of introductory courses. Topics vary depending on the interests of the instructor, and may be interdisciplinary. Active student participation is required. This course may be taken twice, provided a different special topic is being offered.

**Prerequisite:** CHEM 208 Organic Chemistry II or permission of the instructor. Additional prerequisites may be required dependent upon topic.

### **CHEM 401 Inorganic Chemistry**

An introduction to the theories of structure and bonding used in inorganic chemistry and a study of the descriptive chemistry of the elements and their representative compounds. Topics covered include atomic structure and trends in the periodic table, structure and bonding in crystalline lattices, valence bond and molecular orbital theories of covalent bonding, descriptive chemistry of the non-transition elements, properties of transition metals, and structure and bonding in transition metal complexes interpreted in terms of the valence bond, crystal field and molecular orbital theories. **Laboratory (4 hours).**

Prerequisite: CHEM 208 Organic Chemistry II.

### **CHEM 480 Chemical Research I**

Designed to develop a working appreciation of methods of scientific inquiry through development of an original research project. Topics include the selection of a research problem, examination of the chemical literature, study of advanced safety issues, interpretation of data, and the reporting of results. Students initiate a research project with a faculty member and make significant progress on the project.

**Prerequisites:** CHEM 208 Organic Chemistry II, a minimum cumulative QPA of 1.70 in all Chemistry courses, and permission of instructor.

### **CHEM 481 Chemical Research II**

A continuation of CHEM 480 Chemical Research I in which the students complete their research project under the supervision of a faculty member. The two-semester research experience is completed with a formal written report and seminar presentation.

**Prerequisite:** Completion of CHEM 480 Chemical Research I with a minimum grade of C- (1.70).

### **CHEM 490 Directed Study in Chemistry**

An in-depth study of a selected advanced chemistry topic or topics under the direction of a chemistry faculty member. The grade is based on a written report of the study and/or oral exam.

### **CHEM 495 Internship in Chemistry**

A supervised work experience in an area of the student's interest that complements formal course work. The internship program is offered through cooperation of participating institutions that provide guidance for the interns. A minimum of 160 on-site hours is necessary to complete the internship in Chemistry and must be verified by the on-site supervisor and a member of the Chemistry faculty. The 160 hours must be completed within one (1) semester. The internship in Chemistry may be taken for one (1) course credit in the major as a free elective. A student may not enroll in an internship more than twice (two course credits). Any student interested in participating in an internship must consult with the department chair prior to the semester of the desired internship. A written plan for the internship must be submitted by the student to the department chair. The plan must be approved by the department chair as well as the faculty member who serves as internship coordinator. The student must meet with the faculty internship coordinator at least four (4) times during the semester. The grade for the internship is assigned by the internship coordinator with input from the on-site supervisor. Data gathered during the internship may not be utilized for CHEM 480 Chemical Research I or CHEM 498 Chemical Research II.

Prerequisites: Chemistry majors of Junior or Senior standing, two (2) semesters completed at Framingham State University, overall QPA of 2.50 with a 2.70 average in courses for the major, and approval of the department chair.

## **FOOD SCIENCE COURSE DESCRIPTIONS**

### **FDSC 151 Principles of Food Science (Gen. Ed. Domain 6)**

A study of food systems as chemical entities. This course employs biological sciences, physical sciences, and engineering in the study of the nature of foods, causes of deterioration, and the principles underlying food processing. Emphasis is placed on food research in the twenty-first century. Note: Students cannot receive credit for both FDSC 151 Principles of Food Science and FDSC 161 Introduction to Food Science and Technology.

### **FDSC 161 Introduction to Food Science and Technology (Gen. Ed. Domain 6, Lab)**

An introduction to food science and technology based on an understanding of the chemical principles regulating the properties of food. This course employs physical sciences, biological sciences, and engineering in the study of the nature of food, food safety, and the technology underlying the processing and preservation of food. **Laboratory (3 hours)** sessions coordinated with the lectures illustrate and reinforce the important relationships between chemical principles and food. Note: Students cannot receive credit for both FDSC 161 Introduction to Food Science and Technology and FDSC 151 Principles of Food Science.

### **FDSC 351 Food Engineering and Processing**

An integrated approach of food engineering principles and food processing techniques. Topics include thermodynamics, fluid flow and heat transfer, evaporation, refrigeration, psychrometry, drying, distillation, and the essential food processing methods that ensure attainment of food product wholesomeness. **Laboratory (4 hours)**.

Prerequisite: Permission of instructor.

### **FDSC 405 Food Analysis**

A study of the fundamental principles of food analysis with the laboratory work including both the classical and the more recent sophisticated methods of analysis. **Laboratory (4 hours)**.

Prerequisite: CHEM 301 Biochemistry I or permission of the instructor.

### **FDSC 408 Food Chemistry**

A study of the chemistry of food constituents and the chemical and biological changes occurring in foods during storage and processing. The approach is from a cellular and molecular level. **Laboratory (4 hours)**

Prerequisite: CHEM 301 Biochemistry I or permission of the instructor.

**FDSC 413 Food Safety and Microbiology**

A focus on the microorganisms involved in food production, food spoilage, and the transmission of diseases through foods. The effect of various methods of food preservation is evaluated in terms of public health, food spoilage, food quality and nutritional value of foods. **Laboratory (4 hours). Open to Food Science Majors or Minors only or permission of instructor.**

Prerequisite: BIOL 307 Microbiology.

**FDSC 490 Directed Study in Food Science**

An original problem to be selected and researched under the direction of a faculty member.

A written presentation of the research findings is required.

Prerequisite: Permission of the instructor.

**FDSC 495 Food Industrial Practicum**

Enhancement of student's practical knowledge of food science by participating in projects sponsored by industrial and/or governmental agencies.

Prerequisite: Permission of instructor.

# Communication Arts

**Chair: Derrick TePaske**

Professor:	Jennifer C. Dowling, Robert Johnson, Jr., Leslie Starobin, Derrick TePaske
Associate Professors:	Robert Alter, Christopher Bowen, Sarah Cole, Audrey Kali, Laura Osterweis
Assistant Professors:	Niall Stephens
Instructor:	Mary Catherine Caffrey

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

The Department of Communication Arts has as its purview the study of media and speech communication within the context of liberal arts at the University. The goal of the department is to provide students with a balanced perspective from which they may explore the nature of human communication. To that end, the Department offers a wide variety of courses in the areas of media and speech. These studies are designed to promote both a mastery of communication theory and a facility in the execution and performance of that theory.

**The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain I-B (Humanities) is satisfied through the completion of the Communication Arts major.

**Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## COMMUNICATION ARTS MAJOR

**Major Core Requirements (4 courses)**

COMM 115	Introduction to Speech Communication
COMM 130	Introduction to Visual Communication
COMM 250	Media/Society/Self
COMM 450	Seminar in Communication Arts

*Note: Students who have taken COMM 105 Foundations of Communication and COMM 107 Effective Speaking have fulfilled the requirement of COMM 115 Introduction to Speech Communication.*

Majors must select a concentration with the approval of their advisor. Any change in the student's concentration must be approved by the department chair.

## **COMMUNICATION ARTS CONCENTRATIONS:**

### **COMMUNICATION STUDIES (UCMG)**

**The Major Core plus the following Concentration requirements (12 courses):**

#### **Communication Studies (Choose 2):**

COMM 202	Global Media
COMM 207	Interpersonal Dialogue
COMM 220	Principles of Mass Communication
COMM 230	Organizational Communication
COMM 234	Intercultural Communication
COMM 245	Cultural Aspects of Media Representation
COMM 308	Media Criticism

#### **Acting, Directing, and Speech Communication (Choose 2):**

COMM 201	Oral Interpretation of Literature
COMM 205	Small Group Communication
COMM 212	Drama Workshop
COMM 214	Introduction to Acting
COMM 260	Voice and Articulation

#### **Visual Studies (Choose 2):**

ARTH 160	Introduction to the World of Art
ARTH 200	Art and Social Values
ARTH 273	Modern Art History
COMM 210	History of Photography
ENGL 207	Language of Film

#### **Visual Production (Choose 2):**

ARTS 222	Color and Design
COMM 200	Design for Integrated Media
COMM 208	Basic Photography
COMM 262	Television Studio Production
COMM 280	Introduction to Film Production

#### **Writing (Choose 2):**

COMM 226	Writing for Visual Media
COMM 312	Screenwriting
ENGL 225	Introduction to Journalism
ENGL 282	Creative Writing
ENGL 284	Creative Nonfiction

ENGL 286 Professional Writing **or**  
ENGL 372 Technical Writing

ENGL 333 Critical Writing

**Two (2) additional Communication Arts performance or production courses.**

### **INTEGRATED VISUAL MEDIA (UCMI)**

**The Major Core plus the following Concentration requirements (13 courses):**

COMM 200 Design for Integrated Media  
COMM 208 Basic Photography  
COMM 225 Interactive Design  
COMM 226 Writing for Visual Media  
COMM 280 Introduction to Film Production  
COMM 315 Intermediate Photography  
COMM 405 Senior Portfolio in Integrated Visual Media **or**  
COMM 410 Senior Portfolio in Film Production  
COMM 495 Internship in Communication Arts

**Choose one (1) of the following:**

COMM 210 History of Photography  
COMM 338 Advanced Visual Communications

**Two (2) of the following:**

Any Art History course  
Any Studio Art course  
Any Film Studies course

**Choose three (3) of the following:**

COMM 262 Television Studio Production  
COMM 269 Creative Process: Inspiration and Sweat  
COMM 270 Advertising Techniques  
COMM 272 Photography and Architecture  
COMM 309 Video Editing and Effects  
COMM 312 Screenwriting  
COMM 316 Advanced Interactive Design  
COMM 327 Motion Graphics and Animation  
COMM 330 Advanced Photography  
COMM 366 Documentary Filmmaking  
COMM 380 Advanced Film Production  
COMM 390 Topics in Integrated Media Design



**ORGANIZATIONAL & CORPORATE COMMUNICATION (UCMC)**

**The Major Core plus the following Concentration requirements (12 courses):**

COMM 200	Design for Integrated Media
COMM 230	Organizational Communication
COMM 270	Advertising Techniques
COMM 275	Public Relations
COMM 495	Internship in Communication Arts

**Choose one (1):**

COMM 205	Small Group Communication
COMM 207	Interpersonal Dialogue
COMM 213	Advanced Public Speaking
COMM 328	Argumentation and Advocacy
COMM 370	The Rhetorical Tradition

**Choose one (1):**

COMM 202	Global Media
COMM 220	Principles of Mass Communication
COMM 234	Intercultural Communication
COMM 245	Cultural Aspects of Media Representation
COMM 308	Media Criticism

**Choose two (2):**

COMM 226	Writing for Visual Media
ENGL 225	Introduction to Journalism
ENGL 280	Persuasive Writing
ENGL 282	Creative Writing
ENGL 284	Creative Nonfiction
ENGL 286	Professional Writing
ENGL 331	News Writing
ENGL 335	Feature Writing
ENGL 371	Business Writing
ENGL 372	Technical Writing

**Choose one (1):**

MGMT 215	Legal Environment of Business
MGMT 280	Applied Organizational Theory and Management
MRKT 181	Marketing Principles

**Two (2) additional Communication Arts performance or production courses.**

**THEATRE (UCMH)**

**The Major Core plus the following Concentration requirements (11 courses):**

COMM 214	Introduction to Acting
COMM 260	Voice and Articulation
COMM 264	Theatre Production
COMM 364	Aspects of Theatre
THEA 101	Introduction to Theatre Studies

**Choose one (1) of the following:**

ENGL 220	Shakespeare
ENGL 271	Development of the Drama

**Choose one (1) of the following:**

FASH140	Principles of Apparel Construction
FASH 223	History of Costume
FASH 253	Cultural Dress

**Choose three (3) of the following:**

COMM 201	Oral Interpretation of Literature
COMM 226	Writing for Visual Media
COMM 264	Theatre Production*
COMM 312	Screenwriting
COMM 364	Aspects of Theatre*
ENGL 207	The Language of Film
ENGL 208	Film Genres
FASH153	Consumer Textiles
FASH 200	Fashion Sketching and Design

*\*Note: Please see course descriptions as these courses may be taken twice, provided the content is different.*

**PRODUCTION AND SPEECH & PERFORMANCE COURSES**

The following are production and performance courses, as specified in several of the above communication arts concentrations:

**Production courses:**

COMM 200	Design for Integrated Media
COMM 208	Basic Photography
COMM 225	Interactive Design
COMM 226	Writing for Visual Media
COMM 262	Television Studio Production
COMM 264	Theatre Production
COMM 272	Photography and Architecture
COMM 280	Introduction to Film Production
COMM 309	Video Editing and Effects
COMM 312	Screenwriting
COMM 315	Intermediate Photography
COMM 316	Advanced Interactive Design
COMM 327	Motion Graphics and Animation
COMM 330	Advanced Photography
COMM 362	Studio Production II
COMM 380	Advanced Film Production
COMM 390	Topics in Integrated Media Design
COMM 405	Senior Portfolio in Visual Communication
COMM 410	Senior Portfolio in Film Production
COMM 495	Internship in Communication Arts

**Speech & Performance courses:**

COMM 201	Oral Interpretation of Literature
COMM 205	Small Group Communication
COMM 207	Interpersonal Dialogue
COMM 212	Drama Workshop
COMM 213	Advanced Public Speaking
COMM 214	Introduction to Acting
COMM 215	Science Communication
COMM 230	Organizational Communication
COMM 260	Voice and Articulation
COMM 269	Creative Process: Inspiration and Sweat
COMM 322	Persuasion and Social Influence
COMM 328	Argumentation and Advocacy
COMM 370	The Rhetorical Tradition
COMM 495	Internship in Communication Arts

## MINORS

### MINOR IN COMMUNICATION ARTS (COM) (5 COURSES)

Students who minor in communication arts must take COMM 115 Introduction to Speech Communication and four (4) other courses in the Communication Arts curriculum, with the advice of a member of the Communication Arts Department.

### MINOR IN FILM PRODUCTION (FLP) (5 COURSES)

Students who wish to minor in film production must complete five (5) of the following:

**Required:**

COMM 226	Writing for Visual Media
COMM 280	Introduction to Film Production

**Plus choose three (3) of the following:**

COMM 262	Television Studio Production
COMM 309	Video Editing & Effects
COMM 312	Screenwriting
COMM 327	Motion Graphics and Animation
COMM 366	Documentary Filmmaking
COMM 380	Advanced Film Production

### MINOR IN PHOTOGRAPHY (PHO) (5 COURSES)

Students who wish to minor in photography must complete five (5) of the following:

**Required:**

COMM 130	Introduction to Visual Communication
COMM 210	History of Photography

**Plus choose three (3) of the following:**

COMM 208	Basic Photography
COMM 272	Photography and Architecture
COMM 315	Intermediate Photography
COMM 330	Advanced Photography

### MINOR IN THEATRE (THE) (5 COURSES)

Students who wish to minor in theatre must complete five (5) of the following:

**Required:**

THEA 101	Introduction to Theatre Studies
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**Plus choose four (4) of the following:**

COMM 201	Oral Interpretation of Literature
COMM 260	Voice and Articulation
COMM 214	Introduction to Acting

COMM 264	Theatre Production*
COMM 364	Aspects of Theatre*
ENGL 220	Shakespeare

*\*Note: Please see course descriptions as these courses may be taken twice, provided the content is different.*

### COMMUNICATION ARTS COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses		Domain
COMM 107	Effective Speaking	I-A
COMM 130	Introduction to Visual Communication	I-B
COMM 201	Oral Interpretation of Literature	I-B
COMM 208	Basic Photography	I-A
COMM 210	History of Photography	I-B
COMM 212	Drama Workshop	I-A
COMM 214	Introduction to Acting	I-A
COMM 215	Science Communication	III-B
COMM 226	Writing for Visual Media	I-A
COMM 245	Cultural Aspects of Media Representation	III-C
COMM 262	Television Studio Production	I-A
COMM 280	Introduction to Film Production	I-A
THEA 101	Introduction to Theatre Studies	III-B

### COMMUNICATION ARTS COURSE DESCRIPTIONS

#### COMM 107 Effective Speaking (Gen. Ed. Domain I-A)

An application of the principles of speech and language in oral communication. Students practice different types of speech-communication situations and analyze their speaking and language skills. The course incorporates written critiques and may include videotaping of oral presentations and panel discussions. *Note: Students may not receive credit for both 71.107 Effective Speaking and 71.111 Speech and Language Communication (offered prior to Fall 1992).* **Note:** Communication Arts majors who elect to take COMM 107 Effective Speaking may not receive credit for this course if taken concurrently with or after COMM 115 Introduction to Speech Communication. *This course may not be used to satisfy major requirements in Communication Arts.*

#### COMM 115 Introduction to Speech Communication

An introduction to the theories and practice of human communication in interpersonal, small group, and public communication situations. Students apply principles of communication to the content and delivery of messages in a variety of speaking and listening situations. **Note:** Communication Arts majors who elect to take COMM 107 Effective Speaking may not receive credit for this course if taken concurrently with or after COMM 115 Introduction to Speech Communication.

**COMM 130 Introduction to Visual Communication (Gen. Ed. Domain I-B)**

An introduction to ways visual media are used as communication tools in contemporary society. Students are introduced to design fundamentals, graphic illustrations, photography, typography, political cartoons, advertisements, and multimedia both in print and on screen. Daily newspapers, weekly magazines, museum collections, and the Internet are used as the primary text. Students may not receive credit for both 71.110 Introduction to Visual Communication and COMM 130 Introduction to Visual Communication.

**COMM 200 Design for Integrated Media**

An introduction to the computer as a tool for creating visual images for the web, animation, photography, advertisements, graphic design, video, and film. This class focuses on developing students' computer graphic skills, including basic design issues. Computer concepts and practices are covered in detail, such as file formats, scanning, color theory, and image preparation for digital displays. Students are introduced to a variety of software programs currently used by professionals in the interactive design and advertising industry. *Note: Students cannot receive credit for both this course and COMM 200 Introduction to Computer Graphic Design.*

Prerequisite: COMM 130 Introduction to Visual Communication or permission of the instructor.

**COMM 201 Oral Interpretation of Literature (Gen. Ed. Domain I-B)**

A study of literature as a speech art emphasizing the reader's response to the meaning of the spoken word within different literary works, practice in and evaluation of reading aloud, storytelling, and choral speaking. Selections from prose, fiction, and drama are studied.

**COMM 202 Global Media**

A survey of global media texts, from clothes to movies, commercials, news, music videos and social media. Looking mainly at texts from outside the United States, students acquire a deeper understanding of the significance of cultural difference, of how politics and technology shape culture, and of the human dimension of globalization. Students examine the interplay between the oppressive and liberating potentials of media technologies. *NOTE: Students cannot receive credit for both this course and COMM 255 Special Topics in Communication Arts: Media Globalization.*

**COMM 205 Small Group Communication**

An exploration of the theories, concepts and skills that improve speech communication in group contexts. Leadership and group skills are developed through practical application (group work) aimed at accomplishing shared tasks and facilitating positive interaction. Students study the principles of group dynamics, decision-making, problem solving, interpersonal conflict, consensus, leadership and team building. The course incorporates elements of conflict management and also emphasizes issues relevant to membership diversity. Students have the opportunity to evaluate group members' interactions critically and constructively.

Prerequisite: COMM 115 Introduction to Speech Communication or COMM 107 Effective Speaking, or permission of the instructor.

**COMM 207 Interpersonal Dialogue**

A course that fosters a broad level of awareness in regard to interpersonal communication. While it does not offer a formula for interpersonal success, it invites the student to ask questions about the primary issue of the "other" and how the "other" necessarily affects the "self." In so doing, the course centers on issues such as self-awareness, self-disclosure, nonverbal communication, listening, authenticity, power, and conflict. Students become aware of the speech communication processes that both disintegrate and nurture the dyadic human relationship.

Prerequisite: COMM 115 Introduction to Speech Communication or COMM 107 Effective Speaking or permission of instructor.

**COMM 208 Basic Photography (Gen. Ed. Domain I-A)**

An exploration of the discipline as an aesthetic medium, a documentary mode of communication, and a vehicle for personal expression. Students are expected to achieve basic technical competence in the practice of black and white digital photography, while expanding their aesthetic vision. At the end of the semester each student submits a portfolio of photographs demonstrating their command of photographic composition, lighting, and basic printing skills. Students are also introduced to historical traditions of the medium through lecture presentations, films, and gallery/museum visits. Each student is required to have access to his/her own SLR camera for use in this course.

Prerequisite: COMM 130 Introduction to Visual Communication or permission of the instructor.

**COMM 210 History of Photography (Gen. Ed Domain I-B)**

A course which traces the development of the medium from its inception in 1839 to the present. The growth of photography is related to the other major visual arts and communication movements of the nineteenth and twentieth century. Form, content, philosophy, and technique are discussed and analyzed in slide lectures and reading assignments. Each student completes a major independent research project on a particular photographer, group of photographers, or style of work.

Prerequisite: COMM 130 Introduction to Visual Communication or permission of the instructor.

**COMM 212 Drama Workshop (Gen. Ed. Domain I-A)**

A study of playmaking and production. Special attention is given to spoken drama and translation of the play into performance. This course provides students with the criteria for the selection of a play to be performed. Each student participates in acting, directing, and production-related experiences. There may be opportunity for trips to theaters and for private and/or public presentations.

**COMM 213 Advanced Public Speaking**

An application of the principles of speech and language in the delivery of speeches to larger audiences. The class emphasizes organizational techniques, language adaptation, audience analysis and clarity of expression. Students learn the distinctions between preparation and practice of the four major categories of public discourse: informative, deliberative, forensic and epideictic. Oratory skill, confidence, and fluency in speech are primary focal points of this course.

Prerequisite: COMM 115 Introduction to Speech Communication or COMM 107 Effective Speaking, or permission of instructor.

**COMM 214 Introduction to Acting (Gen. Ed. Domain I-A)**

An exploration of the fundamentals of the craft of acting, introducing students to the techniques that awaken the creative mind, body, and spirit of the actor. This course is designed to offer hands-on experience in the fundamentals of acting. Students have the opportunity to explore a variety of texts and develop confidence in their performance skills through group exercises designed to free emotional spontaneity and creativity. Students analyze, memorize, rehearse, and perform scenes from plays. *Note: Students cannot receive credit for both this course and COMM 314 Acting.*

**COMM 215 Science Communication**

An applied study of the oral and visual communication techniques needed to present scientific concepts to a public audience. In both individual and group presentations about scientific news and controversy, students build practical skills in delivery, language clarity, audience adaptation, and the use of multimedia. Science-based issues concerning the public sphere may include the environment and climate change, ocean health, the shortage of natural resources, access to water, energy resources, information and health technologies, pandemics and biosecurity, public health, food safety, STEM education, space exploration, defense technologies, and the Internet.

Prerequisite: ENGL 110 Expository Writing.

**COMM 220 Principles of Mass Communication**

A study of the various infrastructures of mass media systems from national and global perspectives. Current trends and philosophies are discussed from the perspectives of history, culture, and social responsibility. Each student researches and discusses major problems and issues in mass communication.

**COMM 225 Interactive Design**

The study of concepts and techniques using a variety of software programs in the design of websites and interactive multimedia. Projects include web layout and the development of interface and interaction design on the computer. Students develop skills with flowcharting, storyboarding, scripting, and interactive design basics such as: screen design, optimizing images, and working with color and type. **Note:** Credit will not be given for both this course and 71.225 Multimedia Design.

Prerequisite: COMM 200 Design for Integrated Media, or ARTS 361 Graphic Design I, or permission of the instructor.

**COMM 226 Writing for Visual Media (Gen. Ed. Domain I-A)**

A study and practice of writing for all forms of digital and electronic mass communication. Students study various approaches to, and formats and techniques for, writing for the Internet, broadcast news, public and media relations, commercials, comedy, and drama. Using theoretical models and case studies, students develop unique and creative solutions for a variety of “real-world” writing and communication problems. Prerequisites: ENGL 110 Expository Writing.

**COMM 230 Organizational Communication**

Designed to evaluate the role that communication behavior plays in the emergence, sustenance and deterioration of organizations. Examination of theory, concepts, principles and research renders a deep understanding of extensive challenges that organizations face to achieve and maintain success. Appraisal of leadership, teamwork, goals, conflict management, diversity in the workplace, technology and employee satisfaction substantiate organizational complexity. Lecture, class discussion, class presentations, guest speakers and simulations prepare students for the intersection of communication and the organizations with which they affiliate throughout their lives.

**Prerequisite:** COMM 115 Introduction to Speech Communication or COMM 107 Effective Speaking or permission of instructor.

**COMM 234 Intercultural Communication**

An exploration of communication patterns exhibited when individuals and social groups from different cultures and national identities interact. Communication within interpersonal, social, organizational, and political contexts are examined. Attention is directed to the ubiquitous role that culture-specific communication plays in the struggles that cultures endure to preserve their integrity in a world increasingly confounded by globalization. Writing assignments, role-playing exercises, and cultural simulations allow students to consider theories and taxonomies that explain patterns of learned behavior reflected in a culture’s symbols, identity politics, and resistance to change.

**COMM 245 Cultural Aspects of Media Representation (GenEd Domain III-C)**

An investigation of media-constructed images of race, ethnicity, gender, and sexual orientation in the United States. After an initial background study of constitutional guarantees of free speech, students articulate responses to a variety of contemporary issues relating to the role and responsibility of media in representing society’s diverse voices and in shaping an American cultural identity. Credit will not be given for this course and 71.133 Media and Multiculturalism.

**COMM 250 Media/Society/Self**

A study of the impact of popular culture upon contemporary society. Students examine the historical interplay of influences between the mass media and society. The effects of the mass media are critically evaluated within the context of media arts, advertising, politics, public relations, and news.

Prerequisite: COMM 115 Introduction to Speech Communication or permission of instructor.

**COMM 255 Special Topics in Communication Arts**

An in-depth examination of a current communication issue with particular emphasis on the contributions of recent research. Each student completes an assigned research project. Topic and instructor are announced each year.

Prerequisite: COMM 250 Media/Society/Self and permission of the chair.



**COMM 260 Voice and Articulation**

A study of the human voice - how it is naturally designed to work and why it may not work. This course is designed to improve the clarity with which students express themselves vocally in professional and personal situations. Students develop their voices and speech to meet the needs of stage, recorded media, and business and personal communication. They learn and practice exercises that improve their ability to relax, breathe naturally, resonate, and articulate, using Standard American pronunciation, and also work on connecting the voice to thoughts and emotions. Tools, which are taught and practiced, help students while speaking in public settings as well as while engaged in professional and personal interactions.

**COMM 262 Television Studio Production (Gen. Ed. Domain I-A)**

An introduction to the basic technologies, theories and production practices of studio-based multi-camera television programming. Through a variety of creative, team-based hands-on projects and in-depth critiques, students develop fundamental skills in all phases of television studio production. In addition to the operational techniques of video and audio production specific to television, the students gain experience in concept creation, script writing, acting, producing, directing and editing. Student research augments lectures and demonstrations on the aesthetics, ethics and methodological requirements of communicating ideas, information and cultural values via television programming. Note: Students cannot receive credit for both this course and COMM 262 Studio Production I.

**COMM 264 Theatre Production**

A hands-on practical experience in playmaking and production. Students are expected to spend 80 or more hours per semester working on a production at the university. Students work backstage or onstage to bring a production to fruition. Audition is required for performance roles. Students may earn two (2) course credits in succession by arrangement with instructor and chair. *NOTE: A student may take the course a second time with the permission of the instructor provided that the student's responsibility in the production is significantly different.*

Prerequisite: COMM 212 Drama Workshop or permission of the instructor.

**COMM 269 Creative Process: Inspiration and Sweat**

A cross-disciplinary examination and exploration of the nature and role of creativity in a variety of fields, particularly as they relate to production and speech/performance. A wide range of source materials and exercises are consulted and utilized, and guest practitioners from other fields such as art, literature, music, and science make presentations. Students gain greater understanding of the ways in which inspiration can be identified and harnessed in the successful pursuit and practice of their own work, and each completes an approved semester-long personal creative project of his/her own choosing and design.

Prerequisites: COMM 115 Introduction to Speech Communication and COMM 130 Introduction of Visual Communications; or permission of instructor.

**COMM 270 Advertising Techniques**

An examination of the fundamental concepts and techniques of the advertising industry. Emphasis is placed on the study of the history, aesthetics, and practice of advertising, as well as its social aspects. Students create and develop their own advertising presentations.

Prerequisite: COMM 200 Design for Integrated Media or permission of the instructor.

**COMM 272 Photography and Architecture**

A study of the relationship of architecture and photography. Using photography to record and interpret architecture, students study the history of both photography and architecture and how these different visual disciplines work together. Students apply the principles and techniques of conventional and digital photography to create projects both documentary and expressive. The study of important examples of architecture in Eastern Massachusetts is emphasized. Both research and field photography are involved.

Prerequisite: COMM 208 Basic Photography or permission of instructor.

**COMM 275 Public Relations**

A survey of the function and practice of public relations. The course considers the history, concepts, research methods, and production processes of the industry. Specific examples and cases are studied in detail, and students create and develop their own public relations presentations. Credit will not be given for both this course and 71.241 Public Relations.

Prerequisite: COMM 115 Introduction to Speech Communication, or permission of the instructor.

**COMM 280 Introduction to Film Production (Gen. Ed. Domain I-A)**

An introduction to the basic technologies, theories and production practices of single-camera, "short subject" location filmmaking. Students write scripts, choose shots, direct actors and use a variety of devices and techniques to record motion picture and audio elements. Projects are edited using professional computer software and all student works are screened and critiqued by the class. A significant hands-on laboratory component is augmented by in-depth lectures and discussions that explore film aesthetics, design and the cultural-historical context of film as a communication medium. Possible field trips and guest lecturers may further enhance the learning opportunities. Note: Students may not receive credit for this course and COMM 266 Field Production I

Prerequisite: COMM 226 Writing for Visual Media.

**COMM 308 Media Criticism: Principles and Practice**

An advanced course which explores in social, ethical, and aesthetic terms what it means to take a critical stance toward a variety of media texts. While a number of critical perspectives and schools of thought are examined and compared, the course's ultimate objective is the development and articulation of each student's personal standards concerning quality and value. Careful reading, watching, and writing is required, along with active classroom participation.

Prerequisite: COMM 250 Media/Society/Self or permission of instructor.

**COMM 309 Video Editing and Effects**

An exploration of the tools, techniques and theories associated with the disciplines of motion picture editing and special effects creation. Executing numerous hands-on exercises and projects students gain experience using professional computer software to communicate thoughts, feelings, and information through the arrangement and manipulation of visual and auditory elements. Students also practice the generation of special visual effects, from the subtle to the fantastical. Instructor presentations, demonstrations, film screenings, readings and student-guided assignment critiques further lead the students to a comprehensive understanding of the importance of pacing and juxtaposition in motion picture storytelling.

Prerequisite: Comm 280 Introduction to Film Production or permission of the instructor.

**COMM 312 Screenwriting**

An advanced course that examines the craft and the business of screenwriting. The course explores the theoretical and the practical perspectives involved in creating, developing, and marketing scripts based on original ideas or those adapted from existing stories. Students study classic as well as modern approaches to the process of writing for feature-length as well as short film. Guest lecturers, screenings, group discussions and critiques, along with selected readings supplement the learning process as students progress toward completion of semester-long writing projects. Note: Students cannot receive credit for this course and COMM 312 Screen and Teleplay Writing

Prerequisite: COMM 226 Writing for Visual Media or permission of the instructor.

**COMM 315 Intermediate Photography**

An exercise in the creation and production of color photographic images. The focus of this course is on the control of color design, technical parameters, personal vision, documentary requirements, and special effects as applied to color photographic imagery. Each student acquires the ability to select and to critique photographic work based upon a developed aesthetic of color. Students are required to have access to their own SLR camera for use in this course. Note: Students cannot receive credit for both this course and COMM 315 Color Slide Imagery.

Prerequisite: COMM 208 Basic Photography and permission of the instructor.

**COMM 316 Advanced Interactive Design**

An advanced study of interactive digital media. Students evaluate contemporary trends and production techniques while creating professional projects on the computer. Students build skills using the latest interactive technologies and develop stronger aesthetic sensibilities. Discussion and production of multimedia structural elements, user-interfaces, and scripting are an integral part of the course. Note: Students cannot receive credit for both this course and either COMM 316 Advanced Interactive Design or 71.316 Interactive Digital Media.

Prerequisite: COMM 225 Interactive Design.

**COMM 322 Persuasion and Social Influence**

An advanced study of how people influence each other through speech and symbolic gestures. Students evaluate the strategies used to change others' beliefs, attitudes, values and actions. The course prepares students to set persuasive goals for a variety of situations and audiences, generate motivational and logical appeals, and evaluate persuasive messages in the broader culture. Themes include democratic persuasion, the challenge of diversity, and social hierarchy. Controversial topics are selected to reflect persuasive discourses in a pluralistic society. Other issues investigated include methods through which one resists another's attempts to persuade, the distinctions between choice and coercion, and the ways verbal aggression may facilitate or disable persuasion. Fear appeals, propaganda, and compliance-gaining techniques are other areas critically assessed.

Prerequisite: COMM 115 Introduction to Speech Communication or permission of the instructor.

**COMM 327 Motion Graphics and Animation**

The study of concepts and techniques using a variety of software, focused on the creation of moving images and 2-D animated graphics. Students research, view, and evaluate contemporary trends and production techniques while creating professional projects in tandem with learning motion graphics skills on the computer. Assignments range from animating visual elements for web sites, including logo introductions, to working with kinetic typography in relation to narrative sequencing. Students develop experience with storyboards, scripts, digital audio, and the compositing of video, photos, and graphics while using the latest technologies and developing stronger aesthetic sensibilities.

Prerequisite: COMM 200 Design for Integrated Media or permission of the instructor.

**COMM 328 Argumentation and Advocacy**

An introduction to the nature of argument and critical thinking, including methods of analysis, research, critical evaluation of reasoning and evidence, refutation, debate and advocacy. Students learn how to think about their positions critically, plan their communicative strategies effectively, and argue their cases forcefully. The course surveys the study of reasoning, evidence, case construction and effective presentation in bringing about belief and conviction. These concepts are explored in detail, often by applying them to various elements of the public sphere and considering various social and political questions.

Prerequisite: COMM 115 Introduction to Speech Communication or permission of instructor.

**COMM 330 Advanced Photography**

A practicum in advanced photographic production where students gain a sense of context for their own creative choices through studying the works of past and contemporary photographers. Emphasis is on the development of the student's personal photographic style and on the refinement of technical abilities. Lighting techniques and different camera formats are introduced, as well as other advanced photographic topics. The preparation of a coherent thematic portfolio of photographs is required. Students must have access to their own SLR camera for use in this course.

Prerequisite: COMM 315 Intermediate Photography or permission of the instructor.

**COMM 338 Advanced Visual Communications**

A comprehensive survey in which students examine the relationships of visual communications to the fine arts and mass communication. Through a series of thematic projects, students explore in depth how twentieth century artists, graphic designers, photographers, and filmmakers appropriate classical motifs and famous images from the past to visually communicate and comment upon current issues and controversies.

Prerequisite: COMM 130 Introduction to Visual Communication, or any course in the history of art, film or photography at the 200-level or above.

**COMM 362 Studio Production II**

A course in which students develop advanced skills and explore the techniques, methods, and aesthetics of producing, directing, and writing for mass audiences using video and audio production technology in a studio setting. Students are introduced to the process of developing and executing weekly programming for distribution over campus or community cable access. Issues involving fairness, ethics, Federal Communications Commission regulations and community standards are studied and incorporated into course projects.

Prerequisite: COMM 262 Television Studio Production or permission of instructor.

**COMM 364 Aspects of Theatre**

A study of selected technical and performance aspects in theatre. This course explores discrete topics in theatre. Topics may include set design, puppetry, digital media and theatre, storytelling, stage makeup, and acting Shakespeare.. Specific content varies by semester. *NOTE: This course may be taken more than once for credit, provided a different topic is being examined.*

Prerequisite: COMM 212 Drama Workshop or permission of the instructor.

**COMM 366 Documentary Filmmaking**

An advanced course that explores the numerous facets of writing, directing, and producing non-fiction stories. Students examine the history, theories and practices of non-fiction storytelling, while also studying the aesthetics, ethics, and other practical considerations inherent in the medium. Lectures and critiques encourage the analysis of non-fiction storytelling's place in today's society. Working in teams, students conceive an original idea and demonstrate competence by organizing and creating a non-fiction story. Additional emphasis is to be placed on the role of research, planning, marketing and distribution of these films. Demonstrations, guest lectures, field trips, screenings, and discussions supplement the study of this genre. *Note: Students cannot receive credit for this course and COMM 366 Field Production II.*

Prerequisite: COMM 280 Introduction to Film Production or permission of the instructor.

**COMM 370 The Rhetorical Tradition**

An advanced study of the art of speech communication from the oratory of ancient Greece and Rome to the discursive studies of postmodern culture. Emphasis is placed on the ways in which beliefs about language correspond to a culture's prevailing ideology. Students begin their study with the teachings of the Greek Sophists in ancient Athens and the works on rhetoric written by Plato, Aristotle and Isocrates. After surveying the rhetorical theories of Roman orators such as Cicero and Quintillian, students explore the trends of rhetorical discourse through the Middle Ages, the Renaissance, and the Enlightenment. In the latter section of the course, attention is directed to contemporary authors such as I.A. Richards, Chaim Perelman, Wayne Booth, Stephen Toulmin, Kenneth Burke, Michel Foucault and Jacques Derrida. By the end of the course students have a more sophisticated sense of the significance of rhetoric in addressing the relationship between speech communication and culture.

Prerequisite: COMM 115 Introduction to Speech Communication or permission of instructor.

**COMM 380 Advanced Film Production**

An advanced study of production practices, technologies, and theories associated with the planning and creation of motion pictures. Students explore and execute advanced techniques while producing a variety of individual and group film projects which may incorporate animation, effects, sound design, motion graphics, photography and either documentary, experimental or narrative storytelling elements. The hands-on, production-oriented learning experience is supplemented with methodology-based research, lectures, demonstrations and possible field trips and guest lecturers. All student works are screened and critiqued by the class.

Prerequisite: COMM 280 Introduction to Film Production or permission of the instructor.

**COMM 390 Topics in Integrated Media**

An exploration of emerging design theories and practices within the evolving field of visual communications. Students investigate topics in integrated media design and, via traditional and burgeoning technologies, apply new techniques within the areas of screen-based design, 3D design, animation, and web development. The specialized content of this studio production course varies by semester. *NOTE: This course may be taken for credit more than once, provided a different topic is being examined.*

Prerequisite: COMM 200 Design for Integrated Media or permission of the instructor.

**COMM 405 Senior Portfolio in Integrated Visual Media**

A study of all aspects of portfolio development including interactive media, photography, animation, and graphic design. Projects are based on self-promotion and professional design goals. This course provides students with an opportunity to further develop their conceptual and pragmatic skills in visual media design and to prepare their work in a professional manner. Students present their portfolio work in a final exhibition.

Prerequisites: Communication Arts Seniors in the Integrated Visual Media Concentration who have completed the production requirements in the Choose Three group and permission of the instructor.

**COMM 410 Senior Portfolio in Film Production**

The capstone course for students interested in moving image studies in the Integrated Visual Media concentration that offers students the opportunity to complete specialized projects and build and develop material for a professional portfolio while exploring advanced learning experiences and techniques. The course covers a variety of critical theories and affords students the opportunity to further develop their conceptual and pragmatic skills in motion image studies. Students work on production projects that are collaborative in nature, culminating in an end-of-the-semester screening or exhibit. *Note: Students cannot receive credit for this course and COMM 410 Senior Portfolio in Production.*

Prerequisite: This course is open only students with senior status in the Integrated Visual Media concentration of Communication Arts.

**COMM 414 Advanced Acting**

A focus on a creative project. Students continue their study of acting, exploring the various schools of acting to find the appropriate fit for each individual. Schools studied include Stanislavski, Meisner, and the Adler methods of study. The course culminates in a performance piece appropriate for use in an acting portfolio.

Prerequisite: COMM 214 Introduction to Acting or permission of the instructor.

**COMM 450 Seminar in Communication Arts**

The capstone course for all Communication Arts concentrations, designed to accomplish two interrelated goals. The first goal is to prepare students for entry into the world of professional employment and/or graduate school. The second goal is to enlarge students' understanding of the ethical, social, and political implications of economic and communication systems, and their impact upon students' future roles as responsible employees, employers, and citizens.

Prerequisites: 71.250 Media/Society/Self and junior standing or permission of instructor.

**Communication Arts Majors only.**

**COMM 490 Independent Study in Communication Arts**

An independent study for Communication Arts majors with a 3.00 average in departmental courses. A written proposal must be submitted to the faculty member who has agreed to be the supervising instructor. The student must investigate current research and participate in weekly conferences. A final written report is reviewed by the entire department. **Open to Communication Arts Majors only.**

Prerequisite: Junior standing and permission of the supervising instructor and the chair.

**COMM 495 Internship in Communication Arts**

An internship (minimum 140 hours) in a local business, industry or organization. Students are expected to be involved in the organization, administration, and production requirements pertinent to their area of specialization. Students may earn up to three (3) internship course-credits, which may be taken during three (3) separate semesters. Students may also choose to take a two (2) course-credit internship, consisting of 280 hours of service in one semester for two (2) course-credits, and, during a different semester, take a single internship of 140 hours for one (1) course-credit. **Open to Communication Arts Majors only.**

Prerequisites: COMM 250 Media/Society/Self and permission of instructor.

**THEATRE STUDIES COURSE DESCRIPTIONS****THEA 101 Introduction to Theatre Studies (Gen. Ed. Domain III-B)**

An introduction to the art, craft, and socio-psychological dimensions of theatre throughout history from around the globe. Assigned play readings are combined with the study of the collaborative art of theatre from the varied perspectives of playwright, director, designer, technician, actor, critic, and informed audience. This course is suitable for students from a variety of majors who are seeking a basic knowledge of theater.

# Computer Science

**Chair: David Keil**

Professor: Suban Krishnamoorthy

Associate Professor: Cornelia (Conny) Breuning,  
Zhenguang (Jeff) Gao

Assistant Professors: Changyong (Andrew) Jung, David Keil,  
Satish Penmatsa

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## COMPUTER SCIENCE MAJOR

The Department offers courses leading to a Bachelor of Science in Computer Science with concentrations in Computer Science, and Information Systems, both offered with or without a full-time six-month cooperative education experiences. Also offered are minors in Computer Science, Enterprise Systems, Information Systems, Information Technology. The goal of these programs is to train graduates for successful careers in industry and to prepare students for graduate studies. Students are encouraged to participate in either internships or cooperative education experiences as either option provides students with invaluable experience in real-world problem solving and enhance their academic learning as well as their postgraduate employment opportunities.

### The General Education Requirement:

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-A (Analysis, Modeling, and Problem Solving) requirement is satisfied through the completion of the Computer Science major.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## COMPUTER SCIENCE MAJOR (U\_CS)

### Departmental Requirements

Computer Science majors must complete core requirements as well as additional requirements for the particular concentration chosen (see below).

The following eight (8) Core Requirements are mandatory of Computer Science majors in all concentrations:

CSCI	120	Introduction to Information Technology
CSCI	130	Computer Science I Using Java
CSCI	200	Computer Science Professional Exploration Seminar (0.5 course-credit)
CSCI	215	Computer Science II Using Java
CSCI	258	Introduction to Operating Systems using UNIX™
CSCI	360	Database Management
MATH	117	Introduction to Statistics
MATH	215	Finite Mathematics or MATH 206 Discrete Mathematics I

## CONCENTRATIONS

All students majoring in Computer Science must choose one (1) of the four (4) concentrations:

- Computer Science General (UCSG)
- Computer Science General with Cooperative Experience (UCSC)
- Information Systems (UCSI)
- Information Systems with Cooperative Experience (UCSO)

### CONCENTRATION IN COMPUTER SCIENCE (UCSG) (14)

This concentration prepares students for careers in software development.

#### Required Concentration Core courses (8):

CSCI	271	Data Structures
CSCI	317*	Discrete Structures
CSCI	347	Analysis of Algorithms
CSCI	352	Computer Architecture & Assembly Language
CSCI	362	Software Engineering
CSCI	460	Theory of Computing
CSCI	465	Operating Systems Internals
CSCI	477	Computer Networking

*\*MATH 294 Discrete Mathematics II may be substituted for CSCI 317 Discrete Structures*

#### Choose Two (2) Computer Science Electives:

CSCI	300	Artificial Intelligence
CSCI	303	Web and Mobile Applications
CSCI	305	Assembler Language for z/OS ®
CSCI	306	Introduction to .NET Using Visual Basic
CSCI	320	Windows Server & Client Management
CSCI	325	Mobile Application Development
CSCI	333	Object-Oriented Programming Using C++
CSCI	340	UNIX System Administration
CSCI	345	Computer & Network Security
CSCI	373	Advanced Web Technologies
CSCI	400	Special Topics in Computer Science
CSCI	455	Human-Computer Interaction

#### One (1) Science Laboratory Courses:

May choose from the following Domain II-B Gen. Ed. courses:

BIOL	130	Principles of Biology (with Lab)
CHEM	107	Principles of Chemistry (with Lab)
GEOL	231	Physical Geology (with Lab)
PHYS	201	Introductory Physics (with Lab)

PHYS 211 Principles of Physics I (with Lab)

**One (1) Additional Mathematics Elective Course (beyond MATH 200 Precalculus)  
OR Science Elective Course.**

### **CONCENTRATION IN COMPUTER SCIENCE WITH COOPERATIVE EXPERIENCE (UCSC)**

This concentration integrates two (2) full-time six-month cooperative work experiences with the required courses for the Concentration in Computer Science. These cooperative work experiences allow students to apply and further investigate the discipline of computer science.

Concentration Entrance Requirements:

Students must

- Maintain a minimum overall GPA of 2.80;
- Maintain a 3.00 GPA in all Computer Science courses;
- Complete and submit the cooperative experience application during the semester prior to enrolling in CSCI 310 Cooperative Experience I Transfer students must complete three (3) Computer Science courses at Framingham State University prior to participating in CSCI 310 Cooperative Experience I;
- Have junior standing at the time of the first cooperative experience; and
- Have the approval of the Computer Science Department Chair.

This concentration prepares students for careers in software development.

#### **Required Concentration Core courses (10):**

CSCI	271	Data Structures
CSCI	310	Computer Science Cooperative Experience I <i>(3 course-credits)</i>
CSCI	317*	Discrete Structures
CSCI	347	Analysis of Algorithms
CSCI	352	Computer Architecture & Assembly Language
CSCI	362	Software Engineering
CSCI	410	Computer Science Cooperative Experience II <i>(3 course-credits)</i>
CSCI	460	Theory of Computing
CSCI	465	Operating Systems Internals
CSCI	477	Computer Networking

*\*MATH 330 Discrete Mathematics II may be substituted for CSCI 317 Discrete Structures*

#### **Choose Two (2) Computer Science Electives:**

CSCI	300	Artificial Intelligence
CSCI	303	Web and Mobile Applications
CSCI	305	Assembler Language for z/OS ®
CSCI	306	Introduction to .NET Using Visual Basic
CSCI	320	Windows Server & Client Management
CSCI	325	Mobile Application Development
CSCI	333	Object-Oriented Programming Using C++



CSCI	340	UNIX System Administration
CSCI	345	Computer & Network Security
CSCI	373	Advanced Web Technologies
CSCI	400	Special Topics in Computer Science
CSCI	455	Human-Computer Interaction

**One (1) Science Laboratory Courses:**

May choose from the following Domain II-B Gen. Ed. courses:

BIOL	130	Principles of Biology (with Lab)
CHEM	107	Principles of Chemistry (with Lab)
GEOL	231	Physical Geology (with Lab)
PHYS	201	Introductory Physics (with Lab)
PHYS	211	Principles of Physics I (with Lab)

**One (1) Additional Mathematics Elective Course (beyond MATH 200 Precalculus)  
OR Science Elective Course.**

**CONCENTRATION IN INFORMATION SYSTEMS (UCSI)**

This concentration trains students for technical careers in information systems such as database administration, network administration, systems analysis and design, and software quality assurance.

**Required Concentration Core courses (4):**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	345	Computer and Network Security
CSCI	373	Advanced Web Technologies
CSCI	376	Networking Technologies

**Five (5) required Business Courses:**

ACCT	220	Introduction to Financial Accounting
BUIS	411	Information Systems Research
BUIS	460	Information Systems Management
ECON	101	Principles of Macroeconomics (Domain III-C) <b>OR</b>
	ECON 102	Principles of Microeconomics (Domain III-B)
MGMT	280	Organizational Behavior

**Three (3) courses from at least two (2) of the following categories:**

*Network and System Administration:*

CSCI	320	Windows Server and Client Management
CSCI	340	UNIX™ System Administration

*Computer Graphics and Technical Writing:*

CSCI	140	Introduction to the Internet, Graphics and Multimedia
ENGL	286	Professional Writing

ENGL	371	Business Writing
ENGL	372	Technical Writing

*General Information Systems Electives:*

CSCI	164	Introduction to Enterprise Systems using z/OS ®
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Any computer science course at the 200-level and above **except:**

Courses listed in the Network and Systems Administration category or

CSCI	222	Networking and Security for Enterprise Systems
CSCI	234	Introduction to DB2 ® for z/OS ®
CSCI	310	Computer Science Cooperative Experience I
CSCI	410	Computer Science Cooperative Experience II
CSCI	495	Internship in Computer Science

### **CONCENTRATION IN INFORMATION SYSTEMS WITH COOPERATIVE EXPERIENCE (UCSO)**

This concentration integrates two (2) full-time six-month cooperative work experiences and one (1) cooperative experience seminar with the required courses for the Concentration in Information Systems. These cooperative work experiences allow students to apply and further investigate the discipline of computer science.

#### **Concentration Entrance Requirements:**

Students must

- Maintain a minimum overall GPA of 2.80;
- Maintain a 3.00 GPA in all Computer Science courses;
- Complete and submit the cooperative experience application during the semester prior to enrolling in CSCI 310 Cooperative Experience I Transfer students must complete three (3) Computer Science courses at Framingham State University prior to participating in CSCI 310 Cooperative Experience I;
- Have junior standing at the time of the first cooperative experience; and
- Have the approval of the Computer Science Department Chair.

#### **Required Concentration Core courses (6):**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	310	Computer Science Cooperative Experience I (3 course-credits)
CSCI	345	Computer and Network Security
CSCI	373	Advanced Web Technologies
CSCI	376	Networking Technologies
CSCI	410	Computer Science Cooperative Experience II (3 course-credits)

#### **Five (5) required Business Courses:**

ACCT	220	Introduction to Financial Accounting
BUIS	411	Information Systems Research
BUIS	460	Information Systems Management
ECON	101	Principles of Macroeconomics (Domain III-C) <b>OR</b>

MGMT 280 Organizational Behavior

**Three (3) courses from at least two (2) of the following categories:**

*Network and System Administration:*

CSCI 320 Windows Server and Client Management

CSCI 340 UNIX™ System Administration

*Computer Graphics and Technical Writing:*

CSCI 140 Introduction to the Internet, Graphics and  
Multimedia

ENGL 286 Professional Writing

ENGL 371 Business Writing

ENGL 372 Technical Writing

*General Information Systems Electives:*

CSCI 164 Introduction to Enterprise Systems using z/OS ®

Any computer science course at the 200-level and above **except:**

Courses listed in the Network and Systems Administration category or

CSCI 222 Networking and Security for Enterprise Systems

CSCI 234 Introduction to DB2 ® for z/OS ®

CSCI 310 Computer Science Cooperative Experience I

CSCI 410 Computer Science Cooperative Experience II

CSCI 495 Internship in Computer Science

**MAJOR IN BUSINESS & INFORMATION TECHNOLOGY (UITB)  
(Home Department-Business)**

This major is a collaboration with the Business and Computer Science departments and provides students with knowledge in both the business and information technology fields. The intent of this program is to prepare the Business and Information Technology program can “bridge the gap” between technology and business. As entry level workers, they are likely to qualify for jobs as systems analysts, Project Management Office administrators, technical trainers, quality assurance analysts and similar roles. As experienced workers, they are likely to move into Project Management, Delivery Assurance and IT Management roles.

**Required Business core courses (13):**

ACCT 220 Introduction to Financial Accounting

ACCT 221 Introduction to Managerial Accounting

BUIS 411 Information Systems Research

ECON 101 Principles of Macroeconomics

ECON 102 Principles of Microeconomics

FINA 330 Managerial Finance I

MGMT 215 Legal Environment of Business

MGMT 280 Organizational Behavior

MGMT 372 Operations and Project Management

MRKT 271 Marketing Principles

QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics

**Required Computer Science core courses (6):**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	120	Introduction to Information Technology
CSCI	130	Computer Science I Using Java
CSCI	258	Introduction to Operating Systems Using UNIX
CSCI	360	Database Management
CSCI	376	Networking Technologies

**Required Mathematics course (1):**

MATH 123 College Algebra\*

*\*Students with a score on the mathematics placement exam which allows them to take MATH 200 Precalculus may substitute MATH 200 Precalculus, MATH 215 Finite Mathematics, or MATH 219 Calculus I for MATH123 College Algebra.*

**Capstone Requirement (1):**

BUIS 460 Information Systems Management

**MINORS****MINOR IN COMPUTER SCIENCE (5 COURSES)****Required Courses (4):**

CSCI	120	Introduction to Information Technology (Gen.Ed. Domain II-A)
CSCI	130	Computer Science I Using Java
CSCI	215	Computer Science II Using Java
CSCI	258	Introduction to Operating Systems Using UNIX™

**Elective (1):**

One other course from the Computer Science Department.

**MINOR IN ENTERPRISE SYSTEMS (5 COURSES)****Required Courses (5):**

CSCI	164	Introduction to Enterprise Systems
CSCI	208	COBOL for Enterprise Systems
CSCI	222	Networking and Security for Enterprise Systems
CSCI	234	Introduction to DB2 ® for z/OS ®
CSCI	305	Assembler Language for z/OS®

**MINOR IN INFORMATION SYSTEMS (5 COURSES)**

Required Courses (5) – Select from any courses offered through the Computer Science Department. At least one (1) of these courses must be at the 200-level or above. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Information Systems minor will be awarded without compliance with the above format.

**MINOR IN INFORMATION TECHNOLOGY (5 COURSES)**

The University offers an interdisciplinary minor in Information Technology. To earn a minor in Information Technology, students must apply in writing to the Chair of the Computer Science Department. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Information Technology minor will be awarded without compliance with the above format.

*The minor requires five (5) courses as follows:*

**Three (3) required courses:**

BUIS	200	Introduction to Business Systems
CSCI	120	Introduction to Information Technology (Gen.Ed. Domain II-A) <i>(must be taken prior to other courses in the minor)</i>
CSCI	140	Introduction to the Internet, Graphics, and Multimedia

**Two (2) electives from the following list:*****Communication Arts:***

COMM	200	Design for Integrated Media
COMM	225	Interactive Design
COMM	316	Advanced Multimedia
COMM	327	Motion Graphic and Animation

***Computer Science:***

CSCI	108	HTML, JavaScript Programming, & Web Site Development
CSCI	130	Computer Science I Using Java
CSCI	215	Computer Science II Using Java
CSCI	258	Introduction to Operating Systems using UNIX
CSCI	306	Introduction to Visual Basic
CSCI	320	Windows Server and Client Management
CSCI	345	Computer and Network Security

***Geography:***

GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	216	Introduction to Geographic Information Systems
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing

***Mathematics:***

MATH	208	Biostatistics
MATH	307	Intermediate Statistics

## Computer Science Courses Appropriate for General Education (Gen. Ed.)

Courses		Domain	
CSCI	108	HTML, JavaScript Programming, and Web Site Development	I-A
CSCI	120	Introduction to Information Technology	II-A
CSCI	130	Computer Science I Using Java	II-A
CSCI	135	Information Technology and Society	III-B
CSCI	138	Information Technology and the Environment	III-C
CSCI	140	Introduction to the Internet, Graphics, and Multimedia	I-A

### COMPUTER SCIENCE COURSE DESCRIPTIONS

#### CSCI 108 HTML, JavaScript Programming, and Web Site Development (Gen. Ed. Domain I-A)

An introduction to various features of HTML and JavaScript languages such as tags, images, buttons, forms, and animation files. Students learn to program using these languages to create interactive Web pages. Students create a complete Web site using various tools including a browser and image editor.

#### CSCI 120 Introduction to Information Technology (Gen. Ed. Domain II-A)

An overview of computer concepts and Information Technology (IT). Applications of IT in various disciplines are illustrated and the role of information technology in contemporary society, including issues of intellectual property, ethics, privacy and security is discussed. Students are introduced to windowed environments, file management, problem-solving tools and a high-level programming language. Advanced concepts of word processing, spreadsheets, and presentation software required for effective communication, analysis, and design are explored. **Note:** Students cannot receive credit for both this course and 63.151 Personal Computer (PC) Fundamentals and Applications. Students in the IT minor who have taken 63.151 Personal Computer (PC) Fundamentals and Applications should take CSCI 108 HTML, JavaScript Programming and Web Site Development in lieu of CSCI 120 Introduction to Information Technology.

#### CSCI 130 Computer Science II Using Java (Gen. Ed. Domain II-A)

An introduction to the general concepts of computer programming and problem-solving through practical hands-on experience using the Java programming language. Topics include: the basics of computer hardware and software; an introduction to the Java program-development environment and the Java Virtual Machine (JVM); problem-solving techniques for programming; development of algorithms, number systems, data types, and operators; input – output operations; program control structures including loops, methods (functions), and arrays; an introduction to object-oriented programming; and designing, implementing, compiling, testing, and debugging programs. Laboratory periods provide hands-on experience using programming exercises that include implementing designed algorithms as well as compiling, testing, and debugging programs. **Laboratory (2 hours).** Note: Students cannot receive credit for both this course and CSCI 152 Computer Science I Using Java.

Corequisite: MATH 123 College Algebra or minimum score of 4 on the math placement examination.

Prerequisite: CSCI 120 Introduction to Information Technology or permission of instructor.

#### CSCI 135 Information Technology and Society (Gen. Ed. Domain III-B)

An exploration of the impact of computing and information technology (IT) on individuals and society in the United States and the world. The course addresses the impact of IT on areas such as: digital technology at home; personal devices; rapid unregulated spread of (mis)information; political processes of dissemination and polling capabilities; empowering individuals and families with information included in medical and other databases; personal and work place communication; the networked information economy and globalization. Other topics may include the interaction of IT with intellectual property, privacy, ethics, security concerns and freedom of expression.

**CSCI 138 Information Technology and the Environment****(Gen. Ed. Domain III-C)**

A study of how information technologies can support and affect a clean and sustainable environment. Technologies such as virtualization, data centers, cloud computing, smart grid, tracking, imaging, simulation, document management, sensors, analog/digital devices, telecommuting, and teleconferencing are discussed. Use of social network groups to increase awareness and to mobilize action on environmental issues is addressed. The use of these information technologies in the United States is considered through the examination of geographically distributed resources such as water, glaciers, forests, species, and renewable wind and solar energies. The environmental impact of social consumption, recycling, and improper disposal of IT systems is addressed. The impact of technological forces in the United States on global environment is examined. Note: Computer Science majors may take this course as a free elective.

**CSCI 140 Introduction to the Internet, Graphics, and Multimedia****(Gen. Ed. Domain I-A)**

An introductory course exploring fundamental concepts, vocabularies, and techniques related to graphic design, digital cameras, photo editing, scanning, web design, interactive design, animation and multimedia using a variety of software programs. Students gain a broad foundation that can be applied to more advanced concepts and skills in the Information Technology discipline. *Students cannot receive credit for both this course and either COMM 140 Introduction to the Internet, Graphics, and Multimedia or 84.140 Introduction to the Internet, Graphics, and Multimedia.*

**CSCI 164 Introduction to Enterprise Systems using z/OS®**

An introduction to the role of mainframe computing systems in the enterprise computing world. Topics include mainframe hardware and architecture, file systems, batch processing, interfaces, and system utilities. Students gain hands-on experience using an IBM mainframe.

**CSCI 200 Computer Science Professional Exploration Seminar (0.5 course-credit)**

A required seminar for all computer science majors to prepare them for their future careers. Topics include professional ethics, organizational issues, strategic interviewing techniques, industry research, team roles, oral and written communication skills, as well as other topics relevant to an effective job search and a positive work experience. Students begin developing their portfolios, a focused resume, and a succinct career objective. Students also identify their strengths, weaknesses and career interests in order to maximize the potential of a cooperative education experience, internship, or post-baccalaureate position. This course must be completed prior to participation in a cooperative or internship experience. This course may be waived with one (1) or more years of full-time relevant professional industry experience at the discretion of the department chair. *NOTE: Open to Computer Science majors only.*  
Prerequisite: Sophomore standing.

**CSCI 208 COBOL for Enterprise Systems**

An introduction to structured programming with COBOL on a mainframe computer. Topics include structured coding techniques, sorting, table handling, sequential file processing and report generation. No previous programming experience is required.  
Prerequisite: CSCI 164 Introduction to Enterprise Systems using z/OS(R).

**CSCI 215 Computer Science II Using Java**

An intermediate programming course that emphasizes debugging, documentation, and modular and object-oriented design with tools such as the Unified Modeling Language. Topics include event-driven programming, string and array manipulation, sorting and searching, file operations, dynamic memory allocation, inheritance, polymorphism, and exception handling.

Prerequisites: CSCI 130 Introduction to Programming with a minimum grade of C- (1.70) and MATH 200 Precalculus (may be taken concurrently).

**CSCI 222 Networking and Security for Enterprise Systems**

An introduction to networking and security aspects of mainframe computing systems. Network topics include network operations, mainframe networking protocols such as TCP/IP, SNA, SNA/IP, and problem detection and solving. Basic principles of mainframe system security, architecture and virtualization, network security and hardware and software devices for securing mainframe systems are discussed.

Prerequisite: CSCI 164 Introduction to Enterprise Systems using z/OS®.

**CSCI 234 Introduction to DB2® for z/OS®**

An introduction to DB2® for z/OS®. Topics include: DB2 components, architecture, utilities, JCL and SQL for DB2, TSO commands, DB2 administration, and management issues and solutions.

Prerequisite: CSCI 164 Introduction to Enterprise Systems using z/OS®.

**CSCI 258 Introduction to Operating Systems Using UNIX™**

An introduction to the basics of networking and operating systems. Topics include the evolution and overview of operating systems, operating system principles, interfaces (GUI, command line, and API), command processors and utilities, file systems, access control, processes, programming and scripting, user accounts and authentication, OSI model, Internet Protocol, networking utilities, net computing, client-server model, FTP, and network file systems. The UNIX™ operating system is used as a primary reference for illustration and hands-on experience.

Prerequisite: CSCI 130 Computer Science I Using Java.

**CSCI 271 Data Structures**

An in-depth presentation of recursion, collections and iterators, fundamental techniques in graphics, and threading. Students implement linked lists, stacks, queues, trees, heaps, graphs, hash tables and related algorithms. Students implement a significant programming project.

Prerequisites: CSCI 215 Computer Science II Using Java with a minimum grade of C- (1.70) and MATH 200 Precalculus.

**CSCI 300 Artificial Intelligence**

An introduction to cognitive science and efforts to implement intelligence in computer hardware and software, with application areas. Topics include search, knowledge representation, reasoning, uncertainty, learning, embodied interaction, future prospects, and philosophical considerations. Concepts are demonstrated with software.

Prerequisites: Junior standing, CSCI 258 Introduction to Operating Systems Using UNIX™, and either MATH 117 Introduction to Statistics or MATH 200 Precalculus.

**CSCI 303 Web and Mobile Applications**

An introduction into the development of mobile web sites and applications. The course provides the basic programming skills required to design and implement quality websites on a variety of mobile platforms. Students learn to distinguish between mobile websites and mobile web applications. Through extensive hands-on activity and coding, students create mobile sites using currently accepted standards and techniques. Students also learn the basis of creating web applications for mobile devices such as smart phones, including the use of software such as PhoneGap to create platform specific packaged mobile apps.

Prerequisites: CSCI 108 HTML, JavaScript Programming, and Web Site Development and either CSCI 130 Introduction to Programming or CSCI 152 Computer Science I using JAVA.

**CSCI 305 Assembler Language for z/OS®**

An introduction to assembler language on the mainframe platform intended for students with some previous programming background in another language (COBOL, Java, C, C++, etc.). Topics include binary data representation, hexadecimal notation, arithmetic operations, data representation, addressing, general and special-purpose registers, instruction formats and conventions, data structures, masks and condition codes, Boolean operations, and macro instructions.

Prerequisites: CSCI 164 Introduction to Enterprise Systems using z/OS® and either CSCI 208 COBOL for Enterprise Systems or a course in any computer programming language.

**CSCI 306 Introduction to .NET using Visual Basic**

An introduction to the .NET programming environment and the object oriented programming model using the Visual Basic .NET programming language. Topics include object-oriented programming, Visual Basic .NET objects such as forms and controls, code construction, functions and subroutines, parameter passing, looping and other programming structures, persistence of data using text files and database tables, error handling, and debugging of programs. **Note:** Students cannot receive credit for both CSCI 306 Introduction to .NET using Visual Basic and 63.205 Introduction to .NET using Visual Basic.

Prerequisite: CSCI 130 Introduction to Programming or CSCI 152 Computer Science I using Java.



**CSCI 310 Computer Science Cooperative Experience I (3 course-credits)**

A supervised practical experience in a public or private organization appropriate to the student's program of study that expands the student's ability to think and develop professionally within the discipline. The cooperative experience is offered in collaboration with participating institutions that provide experience and professional guidance for the student. The student works full-time over a six-month period. The cooperative experience requires written documentation and critical reflection of the student's experiences. Student performance is evaluated by the industry supervisor and reported to the cooperative experience coordinator who assigns a grade. *Note: This course cannot be used as a 300-level elective for the Concentration in Computer Science or the Concentration in Information Systems.*

Prerequisites: Completion of CSCI 200 Computer Science Professional Exploration Seminar with a minimum grade of C- (1.70) and permission of department chair. Open to students in Computer Science Concentration with Cooperative Experience and Information Systems Concentration with Cooperative Experience only.

**CSCI 317 Discrete Structures**

An intermediate to advanced course on discrete mathematical structures used in computer science. Students study abstract structures used to represent discrete objects and the relationships between these objects. Topics include principles of logic, incompleteness, diagonal proof, inductive proof, and correctness of simple algorithms. Coverage of set theory will extend to relations, graphs, functions, countability, formal languages, and non-well-foundedness. Students write recurrences to define computable functions and explore discrete probability and randomness from a computational viewpoint.

Prerequisites: CSCI 271 Data Structures and either MATH 215 Finite Mathematics or MATH 292 Discrete Mathematics I.

**CSCI 320 Windows Server & Client Management**

Designed to teach students how to plan, set up, and configure Windows server and client workstations with TCP/IP enterprise protocol; monitor and control security within the systems network; administer user accounts, system disks, file system, mail, print and remote access services; and recover from server failures.

Prerequisite: CSCI 252 Computer Science II Using Java.

**CSCI 325 Mobile Application Development**

A study of the design and implementation of mobile applications for Android OS and/or iOS based mobile devices. Students learn about contemporary mobile platforms, design patterns for mobile applications, programming environments and frameworks, and user interface design and implementation. Students work directly with vendor Software Development Kit (SDK) such as Android SDK which uses Java programming language and Extensible Markup Language (XML) for Android mobile application development, and/or Xcode which uses Objective-C languages for iOS mobile application development. Students also learn to develop the interesting aspects of mobile operating system such as multi-touch model, accelerometer, and camera sensor.

Prerequisite: CSCI 252 Computer Science II Using Java.

**CSCI 333 Object-Oriented Programming Using C++**

A presentation of advanced features of programming with an emphasis on class construction and object-oriented design and programming. Topics covered include namespaces, encapsulation, function and operator overloading, templates, collection classes, containers, iterators, inheritance, polymorphism, and exception handling. Course touches on Standard Template Libraries (STL). **NOTE:** Students may not receive credit for both CSCI 333 Object-Oriented Programming Using C++ and 63.259 Object-Oriented Programming Using C++.

Prerequisite: CSCI 252 Computer Science II Using Java.

**CSCI 336 C#.NET and ASP.NET Programming**

An introduction to Microsoft .NET framework and development of web applications using C#.NET and ASP.NET programming. Topics include the .NET framework architecture, ActiveX Data Objects (ADO.NET), C#.NET basics and object-oriented programming, ASP.NET web forms, web controls, data controls, state management, master pages, themes and skins, web user controls, Internet Information Server (IIS) and deployment, and ASP.NET page life cycle.

Prerequisite: CSCI 252 Computer Science II Using Java.

**CSCI 340 UNIX™ System Administration**

A comprehensive coverage of UNIX™ system administration and management. Topics include system setup, booting and shutdown, management of user accounts, file systems, disk management and serial device management, backup and restore, print and network configuration, security, system logs, performance monitoring, and maintenance.

Prerequisite: CSCI 258 Introduction to Operating Systems Using UNIX™.

**CSCI 345 Computer & Network Security**

A detailed study of the concepts and principles of computer and network security. Topics may include: physical and organizational security, cryptography, public key infrastructure, system and services security, networking fundamentals and protocols, worms and viruses, attacks, prevention, detection and recovery, law, ethics, and privacy. The Windows and UNIX operating systems are used for illustrations.

Prerequisite: CSCI 258 Introduction to Operating Systems Using UNIX™.

**CSCI 347 Analysis of Algorithms**

A presentation of asymptotic time and space complexity of sequential and parallel algorithms, using big-O and related notation. Complexity classes P and NP (tractable and intractable problems) and verification of algorithms by formal methods are also discussed.

Prerequisites: CSCI 271 Data Structures with a minimum grade of C- (1.70) and either MATH 206 Discrete Mathematics I or MATH 215 Finite Mathematics.

**CSCI 352 Computer Architecture and Assembly Language**

An introduction to digital logic components, their organization in computer systems, and assembly language programming. Topics include gates and flip-flops, register transfer, and CPU design; memory organization, I/O interfaces, and the interrupt system; representation of data, addressing modes, CPU instructions and pseudo-instructions, assembly language, and the organization of low-level software to control the computer.

Prerequisite: Completion of CSCI 271 Data Structures with a minimum grade of C- (1.70).

**CSCI 360 Database Management**

A comprehensive coverage of database concepts, design, and implementation. Topics include systems analysis, data modeling, relational databases, logical design, normalization, user interfaces, query processing including SQL, database administration, security, backup and restore, and performance evaluation. Popular databases are referenced. **Note:** Students cannot receive credit for both CSCI 360 Database Management and CSCI 467 Data Base Management Systems.

Prerequisite: Either CSCI 130 Introduction to Programming or CSCI 152 Computer Science I Using Java.

**CSCI 362 Software Engineering**

Principles of systematic program design and implementation. Structured programming and top-down segmented program development. Stepwise program development. Chief Programmer Team, HIPO, and other programming techniques. Decision tables. Program correctness and verification. Software reliability.

Prerequisite: Completion of CSCI 271 Data Structures with a minimum grade of C- (1.70).

**CSCI 373 Advanced Web Technologies**

An introduction to dynamic database-driven Web site development. Students learn about client- and-server-side scripting, maintaining persistent information on the Web, and user-interface design concepts.

Prerequisites: CSCI 108 HTML, Java-Script Programming, and Web Site Development; and CSCI 360 Database Management.

**CSCI 376 Networking Technologies**

An introduction to net-centric computing, communication and networking, network security, network management, client-server computing, wireless and mobile computing, and network applications. Various LAN and WAN networking technologies such as Ethernet, Token Ring, wireless network, virtual private network, personal area network, Storage Area Network, Internet, ATM, telecommunication networks, multimedia data technologies, and internetworking are covered. Business aspects of computer networks are also covered. **Note:** Students cannot receive credit for both this course and 63.476 Networking Technologies or CSCI 477 Computer Networking.

Prerequisite: CSCI 258 Introduction to Operating Systems Using UNIX™.

**CSCI 400 Special Topics in Computer Science**

A study of a selected topic in computer science to be given from time to time at the discretion of the Department. Topics presented here are on a one-time-only basis and will not be a permanent part of the curriculum.

Prerequisite: Computer Science major, Junior standing, or permission of the instructor.

**CSCI 410 Computer Science Cooperative Experience II (3 Course-credits)**

A second supervised practical experience in a public or private organization appropriate to the student's program of study that expands the student's ability to think and develop professionally within the discipline. The cooperative experience is offered in collaboration with participating institutions that provide experience and professional guidance for the student. The student works full-time over a six-month period. The cooperative experience requires written documentation and critical reflection of the student's experiences. Student performance is evaluated by the industry supervisor and reported to the cooperative experience coordinator who assigns a grade. *Note: This course cannot be used as a 400-level elective for the Concentration in Computer Science or the Concentration in Information Systems.*

Prerequisites: Open to students in Computer Science Concentration with Cooperative Experience and Information Systems Concentration with Cooperative Experience only.

**CSCI 455 Human-Computer Interaction**

A survey of the field of Human-Computer Interaction (HCI). Emphasis is placed on design strategies for creating and refining an effective user interface throughout the software product life cycle. Task analysis, approaches to user interface design, modeling, and user interface standards are covered as student groups develop a user interface for a software product.

Prerequisites: CSCI 360 Database Management.

**CSCI 460 Theory of Computing**

An introduction to theoretical computer science and some key applications. Models of computation, including finite automata, transducers, pushdown automata, and Turing machines are examined. Concepts of formal language theory are applied to lexical analyzer and compiler construction in programming-language translation. The course includes an introduction to the notions of computability and computational complexity, concepts used in parallel computation, and some aspects of artificial intelligence.

Prerequisites: CSCI 271 Discrete Structures or MATH 206 Discrete Mathematics I.

**CSCI 465 Operating Systems Internals**

An in-depth coverage of operating system principles and internals such as processes, threads, CPU scheduling, concurrency and process synchronization, deadlock, inter-process communication, memory management, virtual memory, file systems, I/O systems, distributed systems, and protection and security. Several of the concepts are implemented through a programming project.

Prerequisites: CSCI 258 Introduction to Operating Systems Using UNIX™, CSCI 352 Computer Architecture and Assembly Language, and CSCI 362 Software Engineering.

**CSCI 477 Computer Networking**

An introduction to the seven layers of the OSI model. General topics include network topologies; introduction to Local Area Networks, such as Ethernet, Token Ring, and FDDI, and internet-working. Special topics include TCP/IP and FTP protocols, socket interface, Remote Procedure Call (RPC), and client-server architecture. *Note: Students cannot receive credit for both this course and CSCI 376 Networking Technologies.*

Prerequisite: CSCI 271 Data Structures or equivalent computer industry experience including strong programming skills in C or an object-oriented language or permission of instructor.

**CSCI 490 Directed Study in Computer Science**

Under the direction of a faculty member, the student researches a topic or topics in computer science. Students should make arrangements with the faculty member who is to direct their work one semester in advance of the work.

**CSCI 495 Internship in Computer Science (1 to 2 course-credits)**

A supervised practical experience in a public or private organization appropriate to the student's program of study. The internship requires written documentation of the student's experiences and a research project or critical evaluation of the experience. Students may earn up to two (2) course-credits in one semester (a minimum of 8 hours per week for 15 weeks is required for a total of 120 hours for each course-credit. The internship is not intended to satisfy or substitute for any of the course required for the major. *NOTE: This course may be taken for a maximum combined total of four (4) course-credits. Each internship must provide a unique experience.* **Open to Computer Science majors only.**

Prerequisite: Permission of Department Chair.

# Economics

**Chair: Fahlino Sjuib**

Associate Professors: Fahlino Sjuib

Assistant Professors: Laura Lamontagne, Lori Lavigne, Luis Rosero

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-A (Analysis, Modeling, and Problem Solving) requirement is satisfied through the completion of the major in Economics.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## Majors

The Department of Economics offers a Bachelor of Arts (B.A.), major in Economics.

## Related Minors

Students majoring in Economics are encouraged but not required to select a minor in another discipline. A number of minors offered by other departments complement the Economics and Business Administration majors and enhance the students' preparation for their individual employment or graduate school goals. Students should discuss these possibilities with their academic advisors.

## ECONOMICS MAJOR (U\_EO)

### Major Core courses (8):

ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
ECON	301	Intermediate Macroeconomic Theory
ECON	302	Intermediate Microeconomic Theory
QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics
MATH	123*	College Algebra

*\*Students with a score on the mathematics placement exam which allows them to take MATH 200 Precalculus may substitute MATH 200 Precalculus, MATH 215 Finite Mathematics, or MATH 219 Calculus I for MATH123 College Algebra.*

### Required Capstone Course (1):

ECON	480	Senior Economics Seminar
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**Major Core Elective courses (5)**

**Choose five (5) courses from the following list** (*No more than one (1) can be at the 100-level and at least three (3) must be 300-level or above*):

ECON	100	Contemporary Economic Problems and Issues
ECON	105	The Current United States Economy
ECON	106	American Economic History
ECON	200	Economics of Globalization
ECON	220	Health Economics
ECON	306	Urban Economics
ECON	309	Labor Economics
ECON	320	Money and Banking
ECON	323	The Economics of Sports
ECON	333	Environmental Economics
ECON	402	Industrial Organization
ECON	410	International Trade
ECON	414	International Finance
ECON	435	Managerial Economics
QUAN	470	Applied Econometrics for Economics and Business

**ECONOMICS CONCENTRATIONS**

In addition to the prescribed major requirements, Economic majors may also choose to declare a concentration in either Business or Finance. Additional course requirements for these concentrations are identified as follows:

**BUSINESS (UEOB) (5 COURSES)****Four (4) Required courses:**

ACCT	220	Introduction to Financial Accounting
FINA	330	Managerial Finance I
MGMT	280	Organizational Behavior
MRKT	181	Marketing Principles

**Choose one (1) elective from:**

ACCT	221	Introduction to Managerial Accounting
BUIS	200	Introduction to Business Systems
ECON	414	International Finance
MGMT	215	Legal Environment of Business
MGMT	381	Human Resource Management

**FINANCE (UEOF) (5 COURSES)****Four (4) Required courses:**

ACCT	220	Introduction to Financial Accounting
ECON	320	Money and Banking

FINA	248	Managerial Finance
FINA	431	Corporate Finance

**Choose one (1) electives courses from:**

ECON	414	International Finance
FINA	300	Fundamentals of Financial Planning and Insurance
FINA	357	Multinational Finance
FINA	445	Investments

**MINORS****MINOR IN ECONOMICS (5 COURSES)****Required Courses:**

ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics

**Plus three (3) electives with at least two at the 200-level or above from:**

ECON	100	Contemporary Economic Problems and Issues
ECON	105	An Introduction of the United States Economy
ECON	106	American Economic History
ECON	200	The Economics of Globalization
ECON	220	Health Economics
ECON	301	Intermediate Macroeconomic Theory
ECON	302	Intermediate Microeconomic Theory
ECON	306	Urban Economics
ECON	309	Labor Economics
ECON	320	Money and Banking
ECON	323	The Economics of Sports
ECON	333	Environmental Economics
ECON	402	Industrial Organization
ECON	411	International Trade
ECON	414	International Finance
ECON	435	Managerial Economics
QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics
QUAN	470	Applied Econometrics for Economics and Business

**ECONOMICS COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)**

Course	Domain
ECON 100	Principles of Macroeconomics III-C
ECON 101	Principles of Macroeconomics III-C
ECON 102	Principles of Microeconomics III-B
ECON 105	An Introduction of the United States Economy III-C

ECON	106	American Economic History	III-A
ECON	200	The Economics of Globalization	III-C
ECON	232	Latin American Political Economy	III-A
QUAN	201	Quantitative Economics and Business I	II-A

## ECONOMICS COURSE DESCRIPTIONS

### **ECON 100 Contemporary Economic Problems and Issues (Gen. Ed. Domain III-B)**

A discussion of current local, national, and international issues using economic analysis in order to better understand these issues and the world around us. A brief introduction to the basic tools of economic theory is given, and students then apply these tools to issues such as the distribution of income and poverty in society, crime, environmental problems, medical care, immigration, international trade, and the role of the U.S. in the world economy, inflation, unemployment and the growing national debt. The exact topics covered are selected based upon their current relevance.

### **ECON 101 Principles of Macroeconomics (Gen. Ed. Domain III-C)**

The study of the U.S. free enterprise system and its place in the global economy. After a consideration of basic economy concepts, the student is introduced to the forces that determine national income, employment, recession, inflation, and economic growth. Monetary and fiscal policy options are analyzed with emphasis on the economic, social, and political consequences.

### **ECON 102 Principles of Microeconomics (Gen. Ed. Domain III-B)**

An introduction to the behavior of individual decision makers, particularly consumers and firms, who must make choices under conditions of economic scarcity. The course focuses on how markets work to allocate resources, how households maximize their satisfaction from consumer opportunities subject to an income constraint, and how firms organize production and measure costs in order to maximize profits. Related topics include comparative advantage and trade, competition and monopoly, government regulation, and labor markets.

### **ECON 105 An Introduction of the United States Economy (Gen. Ed. Domain III-C)**

An overview of the structure of the U.S. economy that provides an understanding of how it functions. Students are first introduced to the discipline of economics and to some of the basic analytical tools which economists use to analyze economic activity, to understand how markets function, and how a market system allocates economic resources. These tools are then used to analyze the various parts of the U.S. economy: product, labor, and financial markets; the influence of international forces; the economic role of the government. During this process data are presented to give students an appreciation for the size of the economy and its sectors. Current economic issues are analyzed and discussed placing special emphasis on how social, political, geographic, and other forces impact those issues.

### **ECON 106 American Economic History (Gen. Ed. Domain III-A)**

An introduction of the evolution and development of the United States economy from precolonial times to the present. Topics include the precolonial Native American economy, the colonial period and the economy of the early United States, the economic impact of slavery, the Civil War and Reconstruction, continental expansion, industrialization, the economic impact of immigration, the World Wars, the Great Depression, the internationalization of the U.S. economy and the expanding role of government. Basic tools of economic analysis are introduced and used as appropriate, and the development of the institutions of the modern U.S. economy is emphasized. The role of both economic and non-economic factors on the development of the U.S. economy is stressed.

### **ECON 200 The Economics of Globalization (Gen. Ed. Domain III-C)**

The study of the economic processes behind globalization including international trade, comparative advantage, economic growth, and inequality. After a history of globalization and current topics in the global environment, students use tools of economic analysis to better understand and critique the implications of globalization. The class discusses institutions and policies around the global markets affecting labor markets, environment, health, and other aspects of world economies.

**ECON 220 Health Economics**

An examination of health outcomes and health care systems using economic tools with a primary emphasis on the current U.S. health care system. Supply and demand of health services, socioeconomic status, and health care decisions are examined in the role of health outcomes. The function of the private insurance market and government intervention are analyzed. The class includes discussion and analysis of current health care policies and comparisons with other health care systems.

Prerequisite: ECON 102 Principles of Microeconomics.

**ECON 232 Latin American Political Economy (Gen. Ed. Domain III-A)**

An exploration of some of the key paradigms in the economic development process of Latin America through a chronological approach. The theoretical and applied topics covered include trade protectionism, financial liberalization, and the role of the State, as well as mechanisms of regional cooperation and integration. The course is divided into two main components. The first part of the course retraces the economic and political history of the region from the “discovery” period through the painful experiences of the “Lost Decade”. The second part of the course addresses the more recent experiences of the region in relation to the rise (and fall) of Neoliberal policy. Moreover, the course explores potential policy responses that might allow the region to better deal with the new challenges posed by expanding globalization, as well as with recurring issues of poverty and inequality, which continue to afflict the region and threaten its long-term economic growth and political stability..

**ECON 290/390 Topics in Economics**

Selected topics in an area of economics offered on occasion at the discretion of the department. Determination of where the course fits in the academic program will be made on a case-by-case basis.

Prerequisite: Case-by-case or permission of instructor.

**ECON 301 Intermediate Macroeconomic Theory**

An in-depth analysis of the static and dynamic theories of aggregate economic behavior; determinants of consumption, investment, the demand for money, and economic growth.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 302 Intermediate Microeconomic Theory**

An in-depth analysis of the theory of consumer behavior, the firm and the industry, and the pricing of the factors of production; general equilibrium analysis, and an introduction to welfare economics.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 306 Urban Economics**

An application of basic economic theory to the task of understanding the process of urbanization, the growth and decline of cities, and the spatial location of economic activity within metropolitan areas. Also examined are the specific urban problems of poverty, housing, local finance, and transportation.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 309 Labor Economics**

An analysis of the nature of the job market. Some topics considered include: unemployment, wages, occupational choice, changing role of women, hiring standards, and relevancy in education programs. Discussion focuses on how society educates and trains its human resources for their entry and re-entry into productive employment.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 320 Money and Banking**

A survey of the development of money and credit, monetary theories, monetary systems and an examination of the relationship between monetary policy and economic welfare.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.



**ECON 323 The Economics of Sports**

An examination of the market for sport entertainment. The major professional sports leagues and the College Sports industry exhibit several practices that separate them from other industries in the United States. The hiring of athletes and selling of the entertainment product are analyzed using economic theory and tools. The impact of policies created by the professional sports leagues, the National Collegiate Athletic Association (NCAA) organizations and the United States Government are applied to production and consumption of professional and collegiate sports.

Prerequisites: Sophomore Status and ECON 102 Principles of Microeconomics.

**ECON 333 Environmental Economics**

An examination of environmental issues using the tools and methods of economic analysis. These tools are used to explain why environmental problems occur and to examine the numerous policies that have been enacted to address these problems. Analytical tools, such as risk analysis, risk management and cost-benefit analysis used by policymakers to design environmental policies, are discussed and evaluated, emphasizing both their strengths and weaknesses. Finally, this knowledge is applied to an in-depth examination of environmental problems and policies in specific areas such as air quality, solid waste disposal, toxic substances and water quality. *Note: Students cannot receive credit for both this course and ECON 290/390 Topics in Economics and Business.*

Prerequisites: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics or permission of the instructor.

**ECON 402 Industrial Organization**

A survey of the market structure, conduct, and performance of American industry. Consideration is given to the rationale and effectiveness of anti-trust policy and related problems and issues.

Prerequisite: ECON 302 Intermediate Microeconomic Theory.

**ECON 410 International Trade**

An analysis of the foundations and principles of international trade. Specific topics include: comparative advantage, terms of trade, factor movements, tariffs and protectionism.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 414 International Finance**

An analysis of the effects of international finance on the economies of countries engaged in globalization. Within the context of the existing global financial structure, this course explores how the exchange rate is influenced by domestic interest rates, output, price levels, and monetary policy. It also considers how a country's choice of exchange rate arrangement can determine financial flows and overall economic performance. Some topics addressed include the history of the international monetary order and its main global institutions, current and past attempts at multinational coordination – e.g. European Union experience – and the opportunities and challenges that the present global financial structure poses for developing countries, including the experiences of Latin America, Asia, and Africa.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 435 Managerial Economics**

An application of the analytical tools of microeconomics to solving business problems. Topics included are criteria for business decisions, pricing and promotion decisions; expenditure, cost, and production decisions; the estimation of production costs and consumer demand; and the estimation of the cost of capital and investment decisions.

Prerequisite: ECON 101 Principles of Macroeconomics and ECON 102 Principles of Microeconomics.

**ECON 480 Senior Economics Seminar**

A seminar designed to afford advanced economics students an opportunity to integrate their studies in an open problem-solving format. The specific topics are developed according to the interests and needs of the participants.

Prerequisite: Permission of the instructor.

**ECON 495 Internship In Economic**

A supervised practical experience in a public or private organization appropriate to the student's program of study. Before registering for the internship the student must submit a proposal outlining the internship and showing how it integrates with the student's academic program. The internship requires written documentation of the student's experiences and a research project or critical evaluation of the experience. Students may earn up to four (4) course-credits. The internship is not intended to satisfy or substitute for any of the courses required for the major.

Prerequisite: A minimum of 3.00 GPA overall and 3.20 in department courses and approval of the department chair. Either grade point requirement may be waived at the discretion of the intern's internship supervisor with approval from the department chair.

**ECON 496 MetroWest Economic Research Center (MERC) Internship**

A supervised practical experience at the MetroWest Economic Research Center (MERC) at Framingham State University. Interns actively participate in the role of MERC, which includes gathering, analyzing, and making available the economic research data to the general public in reference to the MetroWest area and several other nearby regions. Acceptance into the MERC internship program is by application only; application information is available in the MERC office. Student interns are required to work a fixed schedule of 10 hours per week over the length of the 16 week term. Students may earn more than one (1) course-credit through the program, but a maximum of one (1) course-credit may be used to satisfy the requirements for the Economics major.

Prerequisite: Permission of the instructor.

**QUANTATIVE COURSE DESCRIPTIONS****QUAN 201 Quantitative Modeling for Business and Economics (Gen. Ed. Domain II-A)**

A survey of the mathematical skills needed for upper division courses in economics and business. Emphasis is placed on the use of mathematical models to describe relationships in business and economics. Topics covered include mathematical functions, cost functions, the consumption function, systems of equations, market models, the Keynesian income determination model, matrix algebra, input-output analysis, differential and integral calculus, marginal analysis, and profit and utility maximization.

Prerequisite: ECON 101 Principles of Macroeconomics, ECON 102 Principles of Microeconomics, MATH 123 College Algebra, or permission of the instructor.

**QUAN 202 Statistical Analysis for Business and Economics**

An introduction to the basic techniques of descriptive and inferential statistics as applied to the decision-making process in business and economics. Emphasis is placed on estimation and forecasting techniques. Topics covered include measures of central tendency and dispersion, index numbers, probability, regression analysis and economic forecasting.

Prerequisite: QUAN 201 Quantitative Modeling for Business and Economics.

**QUAN 305 Quantitative Methods in Business**

The application of quantitative techniques to solve organizational problems. Topics covered include decision theory and models, analysis of risk, network analysis, linear programming, and the application of these topics through the use of problems and case analysis.

Prerequisite: QUAN 202 Statistical Analysis for Business and Economics, MRKT 271 Marketing Principles, and MGMT 280 Organizational Behavior.

**QUAN 470 Applied Econometrics for Economics and Business**

A continuation of the material presented in Statistical Analysis for Business and Economics, concentrating on the application of these tools to the analysis of economics and business data. The course covers classical linear regression techniques (both simple and multiple regression) with emphasis placed on the necessary modifications to these procedures for use in economic and business applications. Topics covered include heteroskedasticity, auto-correlation, non-linear estimation, errors in variables, multicollinearity, dummy variables, distributed lags and simultaneous equation systems. Students use the computer to apply these concepts to actual data.

Prerequisite: QUAN 202 Statistical Analysis for Business and Economics or permission of the department chair.

# Education

## Chair: Julie A. Zoino-Jeannetti

Professors:	Kelly Kolodny, Diane L. Lowe
Associate Professors:	Mary T. Grasseti, Julie A. Zoino-Jeannetti
Assistant Professors:	James Cressey, May Hara, Kortney Sherbine, Folashade (Shadé) Solomon

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## Adjunct Faculty

Professors:	Barbara Curtin Milot, Mary-Ann Stadtler-Chester
Associate Professors:	Aviva Liebert, Kelly Matthews, Robert Page, Jr.
Assistant Professors:	Lori Bihler

*Field Placement Coordinator: Sandra Shaw*

## PROGRAMS LEADING TO EDUCATOR LICENSURE

At Framingham State University, students will meet the requirements for the Initial license as an Early Childhood Teacher (Pre-K-2) or Elementary Teacher (1-6) through completion of a coordinate major in education. Secondary Education students minoring in Education may obtain an Initial license in the following fields: studio art, biology, chemistry, English, French, history, mathematics, Spanish, and world languages. Students may obtain middle school level licensure in earth science (5-8) or in the secondary subjects listed above with the completion of additional requirements. Students may also obtain the and Teacher of Visual Art (Pre-K-8) by special arrangement with the Art and Music Department. Since 1998, students seeking initial licensure at any level have been required to obtain a satisfactory score on the Massachusetts Test for Educator Licensure (MTEL), formerly named the Massachusetts Educator Certification Test.

## PROGRAM INFORMATION

Framingham State University, the first public institution in America to offer teacher preparation, continues to be in the forefront in teacher education, most recently in the area of teaching with technology. Teacher preparation students use wireless laptop computers and digital cameras in their technology-enhanced courses and student teaching. The teacher preparation programs listed above include a series of pre-practicum courses that enable students to address subject matter defined in the Massachusetts Curriculum Frameworks while preparing for the student teaching experience. The success rate of our students on the Massachusetts Test for Educator Licensure is rooted in a strong liberal arts and sciences curriculum, supported by excellent education courses and academic support services that include test preparation workshops.

All programs of teacher preparation at the University are approved by the Commonwealth of Massachusetts.

## PROGRAMS IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION

Students who plan to become early childhood teachers (pre-K through grade 2) or elementary teachers (grades 1 through 6) fulfill the following components to meet the 32 course-credit requirement for graduation, arranged to allow completion in four years:

Twelve (12) specified general education course-credits (outlined in No.1 below).

Twelve (12) courses in an Interdisciplinary Major in Liberal Arts and Sciences, with a specialization in language arts, social sciences, natural sciences and mathematics, or geography and earth science; or a traditional major in a liberal arts and sciences discipline (2A or 2B below).

Eight (8) education courses in either the elementary or early childhood coordinate major (3A or 3B below).

In addition to requirements in these three areas, all candidates for educational licensure shall be required to pass the Massachusetts Test for Educator Licensure (MTEL), which will assess communication and literacy skills; subject matter knowledge; and foundations of reading. The Massachusetts Test for Educator Licensure is administered in the months of September, November, February, May, and July. The University will comply with state-mandated licensure requirements, which are subject to change.

### 1. GENERAL EDUCATION REQUIREMENT

All students at the University must satisfy a general education requirement consisting of courses that fulfill the Domain General Education model. The courses listed below, with subjects related to the Massachusetts Curriculum Frameworks, are required for students in the Coordinate Major in Elementary Education and are recommended for students in the Coordinate Major in Early Childhood Education.

The Domain General Education courses, with subjects related to the Massachusetts Curriculum Frameworks, are required for students in the Coordinate Major in Elementary Education.

#### COMMON CORE:

ENGL	110	Expository Writing
MATH	110	College Mathematics I

#### DOMAIN I-A:

INTD	160	Image, Sound & Structure: An Approach to Art and Music
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#### DOMAIN I-B:

ENGL	262	American Writers II
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#### DOMAIN I-C:

_____	_____	Any Elementary or Intermediate Language Course
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#### DOMAIN II-A:

MATH	120	College Mathematics II*
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#### DOMAIN II-B (2 courses required):

BIOL	101	Biological Concepts
PHSC	109	Introduction to Physical Science**

#### DOMAIN III-A:

HIST	151	United States History to Reconstruction
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#### DOMAIN III-B:

PSYC	200	Psychology of Development
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#### DOMAIN III-C (2 courses required):

EDUC	222	Sheltered English Immersion
GEOG	110	World Regional Geography

*\*NOTE: MATH 120 College Mathematics II is the required mathematics course for all Elementary Coordinate Majors. It is the recommended mathematics course for Early Childhood Coordinate Majors. MATH 120 College Mathematics II satisfies Domain II Subdomain A.*

*\*\*NOTE: Students choosing the Natural Science specialization must substitute PHYS 201 Introductory Physics for PHSC 109 Introduction to Physical Science to fulfill one of the two course requirements for General Education Domain II, Subdomain B.*

### TEACHER LICENSURE STUDY OF THE CONSTITUTIONS REQUIREMENT

All students pursuing teacher licensure must take one course that includes study of both United States and Massachusetts constitutions, to be chosen from among the following courses.

HIST	151	United States History to Reconstruction
HIST	152	United States History since Reconstruction
POSC	110	Introduction to American Politics
POSC	211	Political Theory: Justice, Law, and Order
POSC	250	American Legal Systems

## 2. INTERDISCIPLINARY MAJOR IN LIBERAL ARTS AND SCIENCES OR TRADITIONAL LIBERAL ARTS AND SCIENCES MAJOR

### A. INTERDISCIPLINARY MAJOR IN LIBERAL ARTS AND SCIENCES

Students may elect the Interdisciplinary Major in Liberal Arts and Sciences, a choice appropriate only in combination with the Coordinate Major in Early Childhood or Elementary Education. The Interdisciplinary Major consists of twelve (12) courses in one of four specializations, described below. Note: Some of the required general education requirements are fulfilled through the Interdisciplinary concentration or the Liberal Art or Science major.

### GEOGRAPHY AND EARTH SCIENCE (UIDR) (Home Department-Geography)

General Education: Specific general education courses are required or recommended for coordinate majors, as outlined in section 1 above. However, students choosing the Geography and Earth Science specialization will take the required geography course and fulfill Gen. Ed. Domain III-C through courses taken in the major, leaving one free elective. Suggested electives are courses in history, literature, or child psychology.

### Interdisciplinary Major with Specialization in Geography and Earth Science (12):

#### Writing (choose one):

ENGL	225	Introduction to Journalism
ENGL	280	Persuasive Writing
ENGL	282	Creative Writing
ENGL	284	Creative Nonfiction
ENGL	286	Professional Writing

#### Science:

CHEM	103	Introductory Chemistry
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**Mathematics (choose one):**

MATH	120*	College Mathematics II
MATH	117	Introduction to Statistics
MATH	123	College Algebra
MATH	200	Precalculus
MATH	201	Intuitive Geometry

*\*Note: MATH 120 College Mathematics II is the required mathematics course for all Elementary Coordinate Majors. It is the recommended mathematics course for Early Childhood Coordinate Majors.*

**Five (5) Geography courses:**

GEOG	101	Introduction to Human Geography
GEOG	110	World Regional Geography
GEOG	2__	Any regional geography course at the 200-level

**Choose two (2) of the following:**

GEOG	201	Economic Geography
GEOG	206	Political Geography
GEOG	211	Cultural Geography
GEOG	212	Geographic Perspectives on the Environment
GEOG	230	Geography of Natural and Man-Made Hazards

**Four (4) Earth Science courses:**

ASTR	220	The Solar System
EASC	241	Introduction to Meteorology
GEOL	231	Physical Geology
GEOL	246	Oceanography

**LANGUAGE ARTS (UIDE)  
(Home Department-English)**

General Education: Specific general education courses are required or recommended for coordinate majors, as outlined in 1 above. However, students choosing the Language Arts specialization will fulfill Gen. Ed. Domain I-B. Suggested electives: courses in history, child psychology.

**Interdisciplinary Major with Specialization in Language Arts (12):****Writing (choose one):**

ENGL	225	Introduction to Journalism
ENGL	280	Persuasive Writing
ENGL	282	Creative Writing
ENGL	284	Creative Nonfiction
ENGL	286	Professional Writing
ENGL	333	Critical Writing

**Science (choose one):**

CHEM	103	Introductory Chemistry
CHEM	131	Science-Environment and Health
EASC	241	Introduction to Meteorology
EASC	246	Oceanography
GEOL	231	Physical Geology
ASTR	220	The Solar System

**Mathematics (choose one):**

MATH	120*	College Mathematics II
MATH	117	Introduction to Statistics
MATH	123	College Algebra
MATH	200	Precalculus
MATH	201	Intuitive Geometry

*\*Note: MATH 120 College Mathematics II is the required mathematics course for all Elementary Coordinate Majors. It is the recommended mathematics course for Early Childhood Coordinate Majors.*

**One (1) Grammar Course:**

ENGL	297	English Grammar
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**Five (5) Literature Courses:**

ENGL	204	Literary Study
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One children's literature course

Three (3) literature courses (not children's literature) not more than one (1) at the 100-level and at least one at the 300-400 level

**Two (2) courses in speech, drama, or film from the following:**

COMM	115	Introduction to Speech Communication
COMM	201	Oral Interpretation of Literature
COMM	212	Drama Workshop
One Film Course		

**One (1) additional elective in children's literature, writing, speech, drama, film, or literature.****NATURAL SCIENCES (UIDA)  
(Home Department-Physics and Earth Sciences)**

General Education: Specific general education courses are required or recommended for coordinate majors, as outlined in section 1 above. Students choosing the Natural Science specialization will fulfill Gen. Ed. Domain II-B. Also, student's in this specialization must substitute PHYS 201 Introductory Physics for PHSC 109 Introduction to Physical Science.

**Interdisciplinary Major with Specialization in Natural Sciences (12):****Writing (choose one):**

ENGL	225	Introduction to Journalism
ENGL	280	Persuasive Writing
ENGL	282	Creative Writing

ENGL	284	Creative Nonfiction
ENGL	286	Professional Writing

**Mathematics:**

MATH	200	Precalculus
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**Two (2) Biology courses:****One (1) course from the following:**

BIOL	240	Botanical Diversity
BIOL	251	Vascular Plant Taxonomy

**One (1) course from the following:**

BIOL	211	Biology of the Reptilia
BIOL	232	Invertebrate Zoology
BIOL	320	Animal Behavior

**Three (3) Chemistry and Food Science courses:**

CHEM	103	Introductory Chemistry <b>or</b>
CHEM	107	Principles of Chemistry
CHEM	201	Introductory Organic Chemistry and Biochemistry

**One (1) course from the following:**

CHEM	108	Principles of Chemistry and Quantitative Analysis
CHEM	131	Science - Environment and Health
FDSC	151	Principles of Food Science

**Three (3) Earth Science courses:****Choose from the following:**

ASTR	220	The Solar System
EASC	241	Introduction to Meteorology
EASC	246	Oceanography
GEOL	231	Physical Geology

**SOCIAL SCIENCES (UIDD)  
(Home Department-History)**

General Education: Specific general education courses are required or recommended for coordinate majors, as outlined in section 1 above. However, students choosing the Social Sciences specialization will fulfill Gen. Ed. Domain III-A as well as the Study of the Constitution requirement through history courses taken in the major, leaving one free elective. Suggested electives are courses in literature, or child psychology.

**Interdisciplinary Major with Specialization in Social Sciences (12):****Writing:**

HIST	250	Historical Research and Writing
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**Science (choose one):**

CHEM	103	Introductory Chemistry
CHEM	131	Science-Environment and Health
EASC	241	Introduction to Meteorology
EASC	246	Oceanography



GEOL	231	Physical Geology
ASTR	220	The Solar System

**Mathematics (choose one):**

MATH	120*	College Mathematics II
MATH	117	Introduction to Statistics
MATH	123	College Algebra
MATH	200	Precalculus
MATH	201	Intuitive Geometry

*\*Note: MATH 120 College Mathematics II is the required mathematics course for all Elementary Coordinate Majors. It is the recommended mathematics course for Early Childhood Coordinate Majors.*

**Six (6) History Courses:**

HIST	151	U.S. History to Reconstruction
HIST	153	Europe and the World to circa 1450 <b>or</b>
		HIST 154 Europe and the World since circa 1450
HIST	225	Historiography
HST_	___	Three (3) intermediate level history courses (one must be an HSTW course)

**Three (3) Geography Courses:**

GEOG	___	A regional geography course at the 200-level (not North America or Europe)
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*One (1) of the following:*

GEOG	250	Geography of the United States and Canada
GEOG	251	Geography of New England

*One (1) of the following:*

GEOG	201	Economic Geography
GEOG	206	Political Geography
GEOG	211	Cultural Geography
GEOG	212	Geographic Perspectives on the Environment

**B. TRADITIONAL LIBERAL ARTS AND SCIENCE MAJOR**

Elementary Education: Changes in Massachusetts Department of Education regulations governing elementary teacher preparation became effective October 1, 2001 and affect students graduating after October 1, 2003. The regulations specify that curricula must include upper and lower level arts and sciences coursework, covering composition; American and world literature; U.S. and world history; geography; economics; child development; science laboratory work; and mathematics and science coursework appropriate for the elementary school teacher. These subjects follow the Massachusetts Curriculum Frameworks and are covered on the Massachusetts Test for Educator Licensure. The Interdisciplinary Major, with specializations described in 2A, fulfills these requirements. However, students may also choose from among traditional liberal arts and sciences majors. Majors in mathematics, history, English, and geography are appropriate and may be completed within 32 courses over a four-year period. While students are not precluded from choosing other traditional majors, such choices will require more than 32 courses, and more than four years, to complete. Students will be required to complete general education courses listed in section 1 above, as well as any specified by the major department.

Early Childhood Education: Massachusetts Department of Education regulations do not specify curricular guidelines in subject matter for students seeking licensure in early childhood education. Students in this program may choose the Interdisciplinary Major or traditional majors mentioned above for elementary teacher preparation. Other majors that may be completed in 32 courses over four years are Art, Modern Languages, and Psychology; majors not mentioned may require additional coursework. The General education courses listed in section 1 above are recommended, but not required, for Coordinate Majors in Early Childhood Education.

### 3. COORDINATE MAJOR IN EDUCATION

Over the four years, students complete one of the following sequences, depending on the level of licensure sought. The initial courses, EDUC 200 Education in American Society with Field Study I and PSYC 200 Psychology of Development, are to be taken during the sophomore or junior year.

#### A. EARLY CHILDHOOD EDUCATION (UECC)

##### (Pre-K - Grade 2 Licensure)

EDUC	200	Education in American Society with Field Study I (taken during the sophomore or junior year)
EDUC	222	Sheltered English Immersion
EDUC	320	The Young Child: Emergent Literacy with Field Study II
EDUC	374	Early Childhood Curriculum: Mathematics and Science with Field Study III
EDUC	376	Early Childhood Curriculum: Reading, Social Studies, and Special Needs (EDUC 374 and EDUC 376 must be taken concurrently)
PSYC	200	Psychology of Development

##### The Professional Semester (four course-credits):

EDUC	431	Early Childhood Professional Practicum A (2 course-credits)
EDUC	432	Early Childhood Professional Practicum B (2 course-credits)

#### B. ELEMENTARY EDUCATION (UELCE)

##### (Grades 1 - 6 Licensure)

EDUC	200	Education in American Society with Field Study I (taken during the sophomore or junior year)
EDUC	222	Sheltered English Immersion
EDUC	322	The Child and Literacy with Field Study II
EDUC	341	Elementary Curriculum: Mathematics with Field Study III
EDUC	346	Elementary Curriculum: Science, Social Studies, and Special Needs (EDUC 341 and EDUC 346 must be taken concurrently)
PSYC	200	Psychology of Development

**The Professional Semester (four course-credits):**

EDUC	437	Elementary Professional Practicum A (2 course-credits)
EDUC	438	Elementary Professional Practicum B (2 course-credits)

**DECLARATION OF THE COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION AFTER MATRICULATION**

After matriculating at Framingham State University, students who wish to be considered for the Coordinate Major in Early Childhood Education or Elementary Education or an Education Minor must meet the following requirements:

1. Cumulative GPA of at least 2.80.
2. Students must have completed at least eight (8) course-credits, including completion of Domain Gen Ed Common Core English and Mathematics.
3. A passing score on the Communication and Literacy component (reading and writing) of the Massachusetts Test for Educator Licensure.
4. Application submitted to the Education Department before October 1<sup>st</sup> for admission in the spring semester, and before February 15<sup>th</sup> for admission in the fall semester.

**PROGRAM IN SECONDARY EDUCATION**

Students who plan to teach at the high school or middle school level must choose a major in a specific discipline, with a minor in Secondary Education. Programs in Secondary Education (both levels) are offered in studio art, biology, English, health/family and consumer sciences, history, mathematics, and modern languages. In addition, middle school licensure may be obtained in earth science, and high school licensure in chemistry.

**SECONDARY EDUCATION MINOR****Teacher of School Subjects 8 - 12: Biology, Chemistry, English, History, Mathematics**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	315	Professional Preparation and Field Study II: General and Discipline-Specific Methods for High School
EDUC	410	Student Teaching Practicum and Seminar I: High School (2 course-credits)
EDUC	411	Student Teaching Practicum and Seminar II: High School (2 course-credits)
PSYC	200	Psychology of Development

**Teacher of School Subjects 5 - 8: Biology, Earth Science, English, History, Mathematics**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	316	Professional Preparation and Field Study II: General and Discipline-Specific Methods for Middle School
EDUC	414	Student Teaching Practicum and Seminar I: Middle School (2 course-credits)
EDUC	415	Student Teaching Practicum and Seminar II: Middle School (2 course-credits)
PSYC	200	Psychology of Development

**Teacher of Foreign Languages Grades 5-12**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	318	Professional Preparation and Field Study II: General and Discipline-Specific Methods for Modern Languages, Grades 5 - 12
EDUC	421	Student Teaching Practicum and Seminar I: Modern Languages Grades 5 - 12 (2 course-credits)
EDUC	422	Student Teaching Practicum and Seminar II: Modern Languages Grades 5 - 12 (2 course-credits)
PSYC	200	Psychology of Development

**Teacher of Visual Art Grades 5 - 12**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	319	Professional Preparation and Field Study II: General and Discipline-Specific Methods for Visual Art, Grades 5 - 12
EDUC	423	Student Teaching Practicum and Seminar I: Visual Art Grades 5 - 12 (2 course-credits)
EDUC	424	Student Teaching Practicum and Seminar II: Visual Art Grades 5 - 12 (2 course-credits)
PSYC	200	Psychology of Development

**Teacher of Visual Art Pre-K to Grade 8**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	319	Professional Preparation and Field Study II: General and Discipline-Specific Methods for Visual Art, Pre-K 5 to Grade 8
EDUC	412	Student Teaching Practicum and Seminar I: Visual Art Pre-K to Grade 8 (2 course-credits)
EDUC	413	Student Teaching Practicum and Seminar II: Visual Art Pre-K to Grade 8 (2 course-credits)
PSYC	200	Psychology of Development

**ADMISSION INTO TEACHER EDUCATION AND THE STUDENT TEACHING PRACTICUM**

The Education Department is proud to continue Framingham State University's long-established tradition of excellence in teacher preparation. The Department's commitment has been stated as follows:

1. To encourage students in their continuing adult development toward becoming self-directing, professional persons.
2. To foster an enthusiasm for scholarly investigation and intellectual pursuit which will be reflected by students in professional field settings.
3. To assist students in broadening their communication skills in order to enhance both their personal and professional advancement.
4. To raise students' social and cultural awareness through a professional program which reflects a philosophy of equal access to educational opportunity for all.
5. To help students gain an understanding of human behavior, especially that of children and young people, that will aid them in working effectively with a variety of life styles and modes of learning.

These goals are consonant with the Standards established by the Commonwealth of Massachusetts as requisite for approval of programs to prepare candidates for licensure as teachers in this state and for reciprocal licensure through the Interstate Certification Compact. (See Handbook of Office of Professional Experiences for further information on teacher licensure standards.)

In accordance with the requirements for approval or accreditation established by the Commonwealth, the Framingham State University Professional Standards Committee applies specific criteria for the retention of candidates in teacher preparation to determine that they possess academic competencies and personal characteristics appropriate to the requirements of teaching. The Professional Standards Committee uses a number of criteria, both objective and subjective, for permitting students to progress through the teacher education programs.

The requirements for entering EDUC 200 Education in American Society with Field Study I are as follows:

1. An undergraduate student must be in good academic standing to be placed in a public school for a field experience.
2. A student on disciplinary or academic probation will not be placed.

The requirements for entering Field Study II, III, and student teaching are as follows:

1. A student on disciplinary or academic probation will not be placed.
2. A student seeking early childhood or elementary licensure must be accepted as a Coordinate Major in the Education Department. A student seeking secondary licensure must declare an education minor in his/her discipline.
3. Undergraduate and post-baccalaureate teacher licensure students must pass the "Communication and Literacy Skills" component of the Massachusetts Test for Educator Licensure (MTEL) prior to entering curriculum courses with Field Study II (early childhood and elementary) or professional preparation (secondary). This policy took effect in Fall 2001.
4. Students in early childhood, elementary, and secondary education must have a minimum of 2.80 GPA in all education courses (EDUC) and Psychology of Development (PSYC 200).
5. Students in early childhood, elementary, and secondary education must maintain a minimum of 2.80 cumulative GPA in all courses taken at Framingham State University.
6. Prior to beginning the student teaching practicum (early childhood, elementary, or secondary), all students (undergraduate and post-baccalaureate) must demonstrate competency in their subject matter field for licensure by achieving a passing score on the appropriate subject area subtest of the MTEL or an equivalent test. Early Childhood and Elementary Education students must also achieve a passing score on the Foundations of Reading test.
7. To be recommended by the University for licensure, a student must have achieved an overall GPA of at least 2.80.

All students engaging in an experience requiring participation in the schools are required to be certified free from tuberculosis. This may be verified by proof of negative results of an intradermal tuberculin test. This information must be filed in the Office of Professional Experiences, Dwight 302.

The general procedures are as follows:

1. Each student who is planning to teach shall, after satisfying general admission requirements of the University, be admitted to his or her respective program.
2. Students make their first formal application for field experience in applying for EDUC 200 Education in American Society with Field Study I, generally taken during the second semester of the sophomore year or the beginning of the junior year. Transfer students take field study as early as possible in their program. This is the first in a series of developmental professional experiences which continues through the student teaching practicum.
3. Students make a second formal application for field experience as follows:

**Program Field Placements:**

Written prior application is necessary to obtain a field placement for the following courses:

EDUC	200	Education in American Society with Field Study I
EDUC	320	The Young Child: Emergent Literacy with Field Study II
EDUC	322	The Child and Literacy with Field Study II
EDUC	341	Elementary Curriculum: Mathematics with Field Study III
EDUC	374	Early Childhood Curriculum: Mathematics and Science with Field Study III
EDUC	431	Early Childhood Professional Practicum A
EDUC	432	Early Childhood Professional Practicum B

EDUC	437	Elementary Professional Practicum A
EDUC	438	Elementary Professional Practicum B

- Students make a final formal application for the student teaching practicum. This application will assist the Professional Standards Committee in evaluating the candidate's suitability to pursue a career in teaching. References may be required along with other pertinent information from University faculty and administration. Applicants for the student teaching practicum who believe that they may not meet the criteria for retention in the program noted above are urged to consult with the Office of Professional Experiences well before the due dates for filing an application.
- The Professional Standards Committee shall assist the Office of Professional Experiences in evaluating students and shall function as an appeal board for students when necessary.

Students are required to make application for all professional field experiences in the Office of Professional Experiences prior to February 15<sup>th</sup> for the fall semester and October 1<sup>st</sup> for the spring semester.

### **POLICY ON REPEATING PROFESSIONAL EXPERIENCES**

Each course required in an Education program must be completed with a grade of C+ (2.30) or higher. When a grade of C, C-, D+, D, D-, F, W, , or U is received in a required course or professional education experience in any education program, the course or experience must be repeated in order to remain in the coordinate education major or secondary education minor program. In addition, when a course with a field study is repeated, the field study component must also be repeated. Failure to achieve a grade of at least C+ (2.30) on the second attempt in any of the courses contributing to the Education GPA will prevent advancing in a coordinate education major or secondary minor. All courses whose grades contribute to the Education GPA, regardless of originating department, must meet the required cumulative 2.80 minimum.

### **PROFESSIONAL EXPERIENCES IN EDUCATION FIELD STUDY, STUDENT TEACHING PRACTICUM**

The professional education program at Framingham State University consists of a planned series of developmental experiences, the amount of participation and responsibility increasing as the student progresses through the program. These experiences are designed to provide a transition from theoretical knowledge to professional application, culminating in assignment to student teaching. All students in secondary education will take two consecutive quarters of student teaching practicum and seminar that will include twelve weeks of student teaching for five days each week. All undergraduate Coordinate Majors in Early Childhood Education or Elementary Education are assigned to a student teaching practicum. This is a full-time experience and the student takes no other courses during the period of student teaching practicum.

The University assumes the responsibility for selecting cooperating teachers and schools and for assigning student teachers to those teachers and schools. While every effort is made to place student teachers in conveniently located centers, students must be prepared to assume responsibility for their own transportation.

Students are advised to check prerequisites in order to follow the correct sequence of professional experiences and courses that lead to student teaching. Students who do not follow the sequence may find themselves in difficulty because they have not taken a prerequisite course.

### **TEACHER EDUCATION CENTERS**

Framingham State University utilizes on-campus and off-campus teacher education centers to provide students with a variety of professional experiences. Student teaching and field study assignments for early childhood, elementary, middle and high school students are made in standard public school settings that utilize the Massachusetts Curriculum Frameworks.

## EDUCATION COURSE DESCRIPTIONS

### **EDUC 123 Education, the Arts, and Community**

An exploration of how educators can utilize the arts as a mechanism for learning about themselves and others. Students examine themes in education centered around issues of identity and self-expression through analyzing the work of visual and performing artists/scholars. Students learn about foundational issues related to learning and identity developed by theorists including John Dewey, Elliot Eisner and Shirley Brice Heath. Students connect the study of the arts to educational themes that specifically address intersecting dynamics of identities (including race, class, gender and sexual orientation). Through a set of studio thinking habits, students investigate their own identities in order to develop a learning community focused on self-discovery and understanding diverse learners and the communities that they come from. Course activities may include field trips to museums and art galleries; reading; art making; and presenting works individually and in groups.

### **EDUC 200 Education in American Society with Field Study I**

A consideration of education in the United States in its social, political, and economic contexts. Lectures and seminars include an analysis of the historical, philosophical, and social foundations of education and of school organization and purpose. The course deals with the origins of schools in the United States, other agencies of education, and how the present educational structure has taken shape. Consideration of contemporary issues is of major importance, including the roles of the American school in a democratic, multi-cultural society. The course is intended to help students determine whether the teaching profession is suited to their individual interests and abilities. A three-hour field study in schools is required each week.

This course is open to all students with sophomore or higher standing. It is required for all students wishing to obtain an Initial teaching license. A field study application must be submitted to the Office of Professional Experiences by October 1<sup>st</sup> for spring semester and February 15<sup>th</sup> for fall semester.

### **EDUC 222 Sheltered English Immersion**

An investigation of the structure of language and the factors that influence second language acquisition. Students consider the impact of culture and diversity on the teaching and learning of English Language Learners (ELLs). Students learn the instructional strategy knowledge necessary to effectively work with and assess ELLs at a variety of English proficiency levels and content areas.

Prerequisites: EDUC 200 Education in American Society with Field Study I and PSYC 200 Psychology of Development; Coordinate majors in early childhood or elementary education or secondary education minors only; for coordinate majors in early childhood or elementary education, EDUC 320 The Young Child: Emergent Literacy with Field Study II or EDUC 322 The Child and Literacy with Field Study II (may be taken concurrently).

### **EDUC 300 Professional Preparation II: Special Needs and Educational Technology**

An interpretation of the basic principles of teaching and classroom methodology that support all learners. Emphasis is given to methods, materials and environmental arrangements that support learners with special needs, including students with disabilities, students who are homeless, students who are gifted, and those with other special needs. Educational technology, including assistive technology, Web 2.0 resources, and web-based tools, is addressed. Candidates develop technology-based tools to communicate with students and parents and evaluate potential web-based resources for planning and teaching. Careful attention is given to accommodations, modifications, differentiation and Universal Design, using the Massachusetts Curriculum Frameworks as a basis for instructional planning. Responsiveness to all learners is stressed.

Corequisite: EDUC 315 Professional Preparation and Field Study II: General and Discipline-Specific Methods for High School, EDUC 316 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Middle Schools, EDUC 318 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Modern Languages, Grades 5-12, or EDUC 319 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Visual Art, Grades PreK-8 and Grades 5-12 must be taken concurrently.

Prerequisites-Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.



Prerequisites-Post baccalaureates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and either PBTL 997 Children, Adolescents, School and Society\* or PBTL 910 Education Foundations\*.

### **EDUC 315 Professional Preparation and Field Study II: General and Discipline-Specific Methods for High School**

An interpretation of the basic principles of teaching and classroom methodology for high schools. Emphasis is given to methods in specific subject areas at high school levels, socio-cultural forces, and organizational patterns. Careful attention is given to the use of the Massachusetts Curriculum Frameworks in lesson and unit planning. Clarity of communication, design of instruction, effective evaluation and responsiveness to all learners are stressed. The required field experience consists of a placement in one or more classrooms in Grades 8-12 one day per week.

Corequisite: EDUC 300 Professional Preparation II: Special Needs and Educational Technology must be taken concurrently.

Prerequisites for Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.

Prerequisites for Post Baccalaureates Teacher Licensure (PBLT): A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and either PBTL 997 Children, Adolescents, School and Society\* or PBTL 910 Education Foundations.

### **EDUC 316 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Middle Schools**

An interpretation of the basic principles of teaching and classroom methodology for middle schools. Emphasis is given to methods in specific subject areas at middle school levels, socio-cultural forces, and organizational patterns. Careful attention is given to the use of the Massachusetts Curriculum Frameworks in lesson and unit planning. Clarity of communication, design of instruction, effective evaluation and responsiveness to all learners are stressed. The required field experience consists of a placement in one or more classrooms in Grades 5-8 one day per week.

Corequisite: EDUC 300 Professional Preparation II: Special Needs and Educational Technology must be taken concurrently.

Prerequisites for Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.

Prerequisites for Post Baccalaureates Teacher Licensure (PBLT): A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and either PBTL 997 Children, Adolescents, School and Society\* or PBTL 910 Education Foundations\*.

### **EDUC 318 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Modern Languages, Grades 5-12**

An interpretation of the basic principles of teaching and classroom methodology. Emphasis is given to methods in teaching modern languages, socio-cultural forces, and organizational patterns. Careful attention is given to the use of the Massachusetts Curriculum Frameworks in lesson and unit planning. Clarity of communication, design of instruction, effective evaluation and responsiveness to all learners are stressed. The required field experience consists of a placement in one or more modern languages classrooms in Grades 5-12 one day per week.

Corequisite: EDUC 300 Professional Preparation II: Special Needs and Educational Technology must be taken concurrently.

Prerequisites for Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education

in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.

Prerequisites for Post Baccalaureates Teacher Licensure (PBLT): A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and either PBTL 997 Children, Adolescents, School and Society\* or PBTL 910 Education Foundations\*.

### **EDUC 319 Professional Preparation and Field Study II: General and Discipline-Specific Methods for Visual Art, Grades PreK-8 and Grades 5-12**

An interpretation of the basic principles of teaching and classroom methodology. Emphasis is given to methods in teaching visual art, socio-cultural forces, and organizational patterns. Careful attention is given to the use of the Massachusetts Curriculum Frameworks in lesson and unit planning. Clarity of communication, design of instruction, effective evaluation and responsiveness to all learners are stressed. The field experience consists of a placement one day per week in a school appropriate for the level of Visual Art licensure sought.

Corequisite: EDUC 300 Professional Preparation II: Special Needs and Educational Technology must be taken concurrently.

Prerequisites for Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.

Prerequisites for Post Baccalaureates Teacher Licensure (PBLT): A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Tests for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and either PBTL 997 Children, Adolescents, School and Society\* or PBTL 910 Education Foundations\*.

*\*Course descriptions are provided in the Graduate Catalog.*

### **EDUC 320 The Young Child: Emergent Literacy with Field Study II**

An introduction to early childhood education with an emphasis on language acquisition and development in young children as well as their social, emotional, and physical development. Through a study of early reading, writing, literature, and the arts (painting, music, movement, etc.) and children's play, developmentally appropriate teaching practices are taught. Students learn

to observe and record the behavior of young children and apply their knowledge of developmental stages and characteristics of young children (ages 3 - 8) with and without special needs to an integrated language arts curriculum. Students also begin their study of characteristics of high-incidence and low-incidence disabilities. The course includes ways to create a classroom environment which recognizes the racial, cultural, and linguistic diversity in young children and supports their learning. (Child Development Lab placement one morning or afternoon per week is required). **Note: Meets for 6 hours on campus.**

Prerequisites-Undergraduates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Test for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all courses in the secondary education minor including PSYC 200 Psychology of Development; completion of EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, and any courses specified by the major department. With permission of the instructor, this course may be taken concurrently with EDUC 200.

Prerequisites-Post baccalaureates: A passing score on each portion of the Communication and Literacy Skills test of the Massachusetts Test for Educator Licensure (MTEL); overall GPA of 2.80 and 2.80 GPA in all education courses; completion of PBTL 002 Field Study I, PBTL 992 Learning and Human Development\*, and PBTL 997 Children, Adolescents, School and Society\*.

*\*Course descriptions are provided in the Graduate Catalog.*

### **EDUC 322 The Child and Literacy with Field Study II**

An introduction to elementary education with an emphasis on the teaching of literacy to school age children (ages 6-12) with and without special needs. Teaching strategies and techniques reflect current theory of literacy instruction and address emergent literacy, word analysis, reading comprehension, reading and writing process, reading and writing in content areas, and basic literacy assessment. The course includes ways to create a classroom environment that recognizes racial, cultural, and linguistic diversity in children

and supports their learning. An elementary school field placement one morning per week is required. **Note: Meets for 6 hours on campus.**

Prerequisites: A passing score on the "Communication and Literacy Skills" component of the Massachusetts Test for Educator Licensure (MTEL); EDUC 200 Education in American Society with Field Study I, PSYC 200 Psychology of Development, acceptance to the Coordinate Major in Elementary Education, and junior status.

Prerequisites or corequisites for post baccalaureate students: EDUC 002 Field Study I, EDUC 992 Learning and Human Development\*, and EDUC 997 Children, Adolescents, School and Society\*.

\*Course descriptions appear in the Graduate Catalog.

### **EDUC 341 Elementary Curriculum: Mathematics with Field Study III**

A course that prepares pre-service teachers with an opportunity to plan and implement appropriate mathematical experiences for children ages 6 - 12 including those with special needs. Teaching strategies and techniques modeled are consistent with the current mathematics education reform movement. A major focus is learning how to help children construct their own understanding of mathematics through problem solving with manipulative materials and technology. (An elementary field placement one day per week is required.)

Prerequisite: EDUC 322 The Child and Literacy with Field Study II.

Corequisite: EDUC 346 Elementary Curriculum: Science, Social Studies, and Special Needs.

### **EDUC 346 Elementary Curriculum: Science, Social Studies, and Special Needs**

Designed to present a variety of teaching strategies, materials, and technology for assisting future teachers. The science component gives students an opportunity to present and critique inquiry lessons based on a variety of topics from the life, physical, and earth sciences. Students learn to implement basic stages in the scientific process. A science based teaching unit helps prepare the students for their student teaching practicum. The social studies component includes several major teaching strategies, such as guided discovery, inquiry, and learning centers. Special emphasis is placed on how to utilize visual materials, integrate disciplines, and develop questioning skills. Student use technology, such as websites and digital photography.. The special education component is designed to assist students in understanding the classroom teacher's role in supporting inclusion. Tools and techniques are provided for understanding the concepts of integration, for addressing all children's learning needs, and for supporting both educators and children through consultation, collaboration and co-teaching efforts. Students develop skills in preparing, implementing, and evaluating Individualized Education Programs (IEPs). **Note: Meets for 6 hours on campus.**

Prerequisites: EDUC 322 The Child and Literacy with Field Study II, overall GPA of 2.7 and 2.7 GPA in all education courses.

Corequisite: EDUC 341 Elementary Curriculum: Mathematics with Field Study III.

### **EDUC/SOCI 350 Education and Social Change**

An examination of two interrelated themes: how social change shapes education and how education expresses social change. Through applied topics such as education's influences on social inequalities through different forms of education, the relationship between the economy and education, and the history of schooling in the United States, students learn key concepts of social change and education and of the relationship between the two. Readings include theory, research, history, and issues-focused articles pertaining to these topics. Students assess contemporary media on education and social change, and they complete independent projects related to topics in education and social agendas.

Prerequisite: SOCI 101 Introduction to Sociology, SOCI 130 Social Problems or EDUC 200 Education in American Society with Field Study I.

**EDUC 374 Early Childhood Curriculum: Mathematics and Science with Field Study III**

Designed to help preservice teachers plan and implement appropriate mathematical experiences for children ages 3 - 9, including those with special needs. Teaching strategies are consistent with the current mathematics education reform movement. A major focus is learning how to help children construct their own understanding of mathematics through problem solving with manipulative materials and technology. The science component gives students an opportunity to present and critique inquiry lessons based on a variety of topics from the life, physical, and earth sciences. Students learn to implement the basic stages in the scientific process. A science based teaching unit helps prepare the students for their student teaching practicum. A kindergarten-grade 2 placement one day per week is required. **Note: Meets for 5 hours on campus.**

Prerequisites: EDUC 320 The Young Child: Emergent Literacy with Field Study II, overall GPA of 2.7 and 2.7 in all education courses.

**EDUC 376 Early Childhood Curriculum: Reading, Social Studies, and Special Needs**

An introduction to social studies and a continuation of early childhood reading and special education curriculum. The reading component moves beyond the emergent stage of reading and writing development to address proven strategies for teaching skills in areas key to classroom instruction for the beginning and fluent reader: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The social studies component includes several major teaching strategies, such as guided discovery, inquiry, and learning centers. Special emphasis is placed on how to utilize visual materials, integrate disciplines, and develop questioning skills. Students also use technology, such as websites and digital photography. The special education component assists students in understanding the classroom teacher's role in supporting inclusion. Tools and techniques are provided for understanding the concepts of integration, addressing all children's learning needs, and supporting both educators and children through consultation, collaboration and co-teaching efforts. Students develop skills in preparing, implementing, and evaluating Individualized Education Programs (IEPs). **Note: Meets for 6 hours on campus.**

Prerequisites: EDUC 320 The Young Child: Emergent Literacy with Field Study II, overall GPA 2.7 and 2.7 GPA in all education courses.

Corequisite: EDUC 374 Early Childhood Curriculum: Mathematics and Science with Field Study III.

**EDUC 410 Student Teaching Practicum and Seminar I: High School (2 Course-credits)**

A supervised experience in teaching the student's major subject at the high-school level. After an initial period of intensive seminars at the University, the student participates in the complete program every day in the school of placement under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. No other course may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 315 Professional Preparation and Field Study II: Methods, Special Education and Technology for High School, any courses specified by the major department, and satisfaction of the requirements specified in "Admission into Teacher Education and Student Teaching Practicum" elsewhere in this catalog.

**EDUC 411 Student Teaching Practicum and Seminar II: High School (2 Course-credits)**

A second supervised experience in teaching the student's major subject at the high school level. After an initial intensive seminar at the University to assess the work of EDUC 410 Student Teaching Practicum and Seminar I: High School, the student participates in the complete program every day in the same school of placement as in EDUC 410 under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. The course concludes with a period of intensive seminar at the University. No other courses may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 410 Student Teaching Practicum and Seminar I: High School.

**EDUC 412 Student Teaching Practicum and Seminar I: Visual Art Pre-K to Grade 8 (2 Course-credits)**

A supervised experience in teaching visual art. After an initial period of intensive seminar at the University, the student participates in the complete program every day in the school of placement under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. No other course may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 319 Professional Preparation and Field Study II: Methods, Special Education and Technology for Visual Art Pre-K to Grade 8 and Grades 5 to 12, any requirements specified by the Art and Music Department, and satisfaction of the requirements specified in "Admission into Teacher Education and Student Teaching Practicum" elsewhere in this Catalog.

**EDUC 413 Student Teaching Practicum and Seminar II: Visual Art Pre-K to Grade 8 (2 Course-credits)**

A second supervised experience in teaching visual art Pre-K to 8. After an initial intensive seminar at the University to assess the work of EDUC 412 Student Teaching Practicum and Seminar I: Visual Art Pre-K to Grade 8, the student participates in the complete program everyday in the same school of placement as in EDUC 412 under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. The course concludes with a period of intensive seminars at the University. No other courses may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 412 Student Teaching Practicum and Seminar I: Visual Art Pre-K to Grade 8.

**EDUC 414 Student Teaching Practicum and Seminar I: Middle School (2 Course-credits)**

A supervised experience in teaching the student's major subject at the middle-school level. After an initial period of intensive seminars at the University, the student participates in the complete program every day in the school of placement under the guidance of the cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. No other course may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 316 Professional Preparation and Field Study II: Methods, Special Education and Technology for Middle School, any courses specified by the major department, and satisfaction of the requirements specified in "Admission into Teacher Education and Student Teaching Practicum" elsewhere in this catalog.

**EDUC 415 Student Teaching Practicum and Seminar II: Middle School (2 Course-credits)**

A second supervised experience in teaching the student's major subject at the middle-school level. After an initial intensive seminar at the University to assess the work of EDUC 414 Student Teaching Practicum and Seminar I: Middle School, the student participates in the complete program every day in the same school of placement as in EDUC 414 under the guidance of a cooperating teacher and the University supervisor. Seminar meetings are scheduled during this period. The course concludes with a period of intensive seminars at the University. No other courses may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 414 Student Teaching Practicum and Seminar I: Middle School

**EDUC 421 Student Teaching Practicum and Seminar I: Modern Languages Grades 5-12 (2 Course-credits)**

A supervised experience in teaching modern languages for licensure as a teacher of foreign languages. After an initial period of intensive seminar at the University, the student participates in the complete program every day in the school of placement under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. No other course may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 318 Professional Preparation and Field Study II: Methods, Special Education and Technology for Modern Languages, any requirements specified by the Modern Languages Department, and satisfaction of the requirements specified in "Admission into Teacher Education and Student Teaching Practicum" elsewhere in this Catalog.

**EDUC 422 Student Teaching Practicum and Seminar II: Modern Languages Grades 5-12 (2 Course-credits)**

A second supervised experience in teaching modern languages for licensure as a teacher of foreign languages. After an initial intensive seminar at the University to assess the work of EDUC 421 Student Teaching Practicum and Seminar I: Modern Languages Grades 5-12, the student participates in the complete program every day in the same school of placement as in EDUC 421 under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. The course concludes with a period of intensive seminars at the University. No other courses may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 421 Student Teaching Practicum and Seminar I: Modern Languages Grades 5-12.

**EDUC 423 Student Teaching Practicum and Seminar I: Visual Art Grades 5-12 (2 Course-credits)**

A supervised experience in teaching visual art. After an initial period of intensive seminar at the University, the student participates in the complete program every day in the school of placement under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. No other course may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 319 Professional Preparation and Field Study II: Methods, Special Education and Technology for Visual Art Pre-K to Grade 8 and Grades 5 to 12, any requirements specified by the Art and Music Department, and satisfaction of the requirements specified in "Admission into Teacher Education and Student Teaching Practicum" elsewhere in this Catalog.

**EDUC 424 Student Teaching Practicum and Seminar II: Visual Art Grades 5-12 (2 Course-credits)**

A second supervised experience in teaching visual art. After an initial intensive seminar at the University to assess the work of EDUC 423 Student Teaching Practicum and Seminar I: Visual Art Grades 5-12, the student participates in the complete program every day in the same school of placement as in EDUC 423 under the guidance of a cooperating teacher and a University supervisor. Seminar meetings are scheduled during this period. The course concludes with a period of intensive seminars at the University. No other courses may be taken while enrolled in this course.

Prerequisite: A passing score on the appropriate subject area test of the Massachusetts Test for Educator Licensure (MTEL); EDUC 423 Student Teaching Practicum and Seminar I: Visual Art Grades 5-12.

**EDUC 431 Early Childhood Professional Practicum A (2 Course-credits)**

A supervised teaching experience at the kindergarten level in a public school setting five days per week for six weeks. This practicum gives students an opportunity to develop and practice teaching competencies under the guidance of a supervising practitioner and a University supervisor. During regularly scheduled seminars, students share experiences, solve problems, and reflect on their teaching practice. Note: A practicum (student teaching) application must be submitted to the Office of Professional Experiences by October 1<sup>st</sup> for spring semester and February 15<sup>th</sup> for fall semester.

Prerequisites-Undergraduates: Passing scores on all Massachusetts Tests for Educator Licensure (MTEL) required for the Early Childhood license; EDUC 222 Sheltered English Immersion; EDUC 374 Early Childhood Curriculum: Mathematics and Science with Field Study III; EDUC 376 Early Childhood Curriculum: Reading, Social Studies and Special Needs; overall GPA of 2.80 and 2.80 GPA for all courses in the coordinate major, including PSYC 200 Psychology of Development..

Prerequisites-Post baccalaureates: Passing scores on all Massachusetts Tests for Educator Licensure (MTEL) tests required for the Early Childhood license; EDUC 374 Early Childhood Curriculum: Mathematics and Science with Field Study III; EDUC 376 Early Childhood Curriculum: Reading, Social Studies and Special Needs; overall GPA of 2.80 and GPA of 2.80 for all education courses.

**EDUC 432 Early Childhood Professional Practicum B (2 Course-credits)**

A supervised teaching experience in a public school classroom (grades 1-2) five days per week for ten weeks. This practicum gives students an opportunity to develop and practice teaching competencies under the guidance of a supervising practitioner and a University supervisor. During regularly scheduled seminars, students share experiences, solve problems, and reflect on their teaching practice. Note: A practicum (student teaching) application must be submitted to the Office of Professional Experiences by October 1<sup>st</sup> for spring semester and February 15<sup>th</sup> for fall semester.

Prerequisite: Satisfactory completion of EDUC 431 Early Childhood Professional Practicum A.

**EDUC 437 Elementary Professional Practicum A (2 Course-credits)**

A supervised teaching experience in a classroom (grades 1-6) five days per week. This practicum gives students an opportunity to develop and practice teaching competencies under the guidance of a supervising practitioner and a University supervisor. During regularly scheduled seminars, students share experiences, solve problems, and reflect on their teaching practice. Note: A practicum (student teaching) application must be submitted to the Office of Professional Experiences by October 1<sup>st</sup> for spring semester and February 15<sup>th</sup> for fall semester.

Prerequisites-Undergraduates: Passing scores on all Massachusetts Tests for Educator Licensure (MTEL) required for the Elementary license; EDUC 222 Sheltered English Immersion; EDUC 341 Elementary Curriculum: Mathematics with Field Study III; EDUC 346 Elementary Curriculum: Reading, Social Studies and Special Needs; overall GPA of 2.80 and 2.80 GPA for all courses in the coordinate major, including PSYC 200 Psychology of Development.

Prerequisites-Post baccalaureates: Passing scores on all Massachusetts Tests for Educator Licensure (MTEL) tests required for the Elementary license; EDUC 341 Elementary Curriculum: Mathematics with Field Study III; EDUC 346 Elementary Curriculum: Reading, Social Studies and Special Needs; overall GPA of 2.80 and 2.80 GPA for all education courses.

**EDUC 438 Elementary Professional Practicum B (2 Course-credits)**

A supervised teaching experience continuing in a classroom (grades 1-6) five days per week. This practicum gives students an opportunity to develop and practice teaching competencies under the guidance of a supervising practitioner and a University supervisor. During regularly scheduled seminars, students share experiences, solve problems, and reflect on their teaching practice. Note: A practicum (student teaching) application must be submitted to the Office of Professional Experiences by October 1<sup>st</sup> for spring semester and February 15<sup>th</sup> for fall semester.

Prerequisite: Satisfactory completion of EDUC 437 Elementary Professional Practicum A.

**EDUC 490 Independent Study: Current Topics in Education**

An investigation into a topic in education selected by the student with the guidance and supervision of a member of the Education Department. This directed study is designed for the able student who wishes to pursue an identified area of interest through further research or development of a learning project. The investigation includes a research component, four written progress reports and a final document.

Prerequisite: A 3.00 GPA, completion of EDUC 374 Early Childhood Curriculum: Mathematics and Science with Field Study III or EDUC 341 Elementary Curriculum: Mathematics with Field Study III. All proposals must be accepted by the instructor and approved by the Department Chair.

# English

## Chair: Desmond McCarthy

Professors:	Elaine Beilin, Elizabeth (Lisa) Eck, Patricia Lynne, Carolyn Maibor, Desmond McCarthy, Lynn Parker, Evelyn Perry
Associate Professors:	Patricia Crouch, Thomas Grove, Claudia Springer
Assistant Professors:	Bartholomew Brinkman, Patricia Shu, Colleen Coyne, Lorianne DiSabato, Alexander Hartwiger, Patricia Horvath, Kelly Matthews, Rachel Trousdale, Samuel Witt
Instructor:	Elizabeth Banks

\*Sabbatical: Fall 2016

\*\*Sabbatical: Spring 2017

The English Department offers a wide-range program of poetry, prose, drama, film, linguistics, writing, and journalism for majors and non-majors alike. This program is designed to help students develop increased skills in reading, writing, and analytical thinking; greater appreciation of literature; and deeper understanding of the relationship between literature and race, gender, culture, history, and our shared humanity.

### The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain I-B (Humanities) is satisfied through the completion of the English major.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### Placement Testing

Each incoming student must take placement examinations in writing, mathematics, and reading, which are administered prior to orientation for new students. Information regarding Placement Testing dates and times may be found at <http://www.framingham.edu/studentaffairs/placement.htm>. Contact the Office of First Year Programs located in the Center for Academic Support and Advising (CASA) for reservations.

### Writing Code Interpretation

#### Code Explanation

- 1 May not take a college level writing course at Framingham State University.
- 2 Must complete ENGL 100 Introduction to College Writing before enrolling in ENGL 110 Expository Writing.
- 3 May register for ENGL 110 Expository Writing, which meets the University's general education writing requirement. A Reading Code of 2 is also required to register for ENGL 110.
- 4 Completed ENGL 100 Introduction to College Writing.
- 5 Transfer coursework accepted.

*NOTE: During the Course Add/Drop period, First-Year First-Time students cannot drop ENGL 100 Introduction to College Writing or ENGL 110 Expository Writing unless a completed Course Override form is presented to the Office of the Registrar. The form must include instructor signatures and permission to enroll in a different section of the same course.*



## Reading Code Interpretation

### Code   Explanation

- 1   Indicates student must retest and is not eligible to enroll in ENGL 110 Expository Writing.
- 2   Indicates student may enroll in ENGL 110 Expository Writing if Writing Placement score is equal to 3 or higher.
- 3   Indicates student has completed remedial coursework and may enroll in ENGL 110 Expository Writing.
- 4   Indicates two or more credit bearing courses have been accepted in transfer and student may enroll in ENGL 110 Expository Writing.

## ENGLISH MAJOR

### Departmental Requirements for English Major (UENG)

**Principal courses, twelve (12) required, as follows:**

#### Major Core:

ENGL 204      Literary Study  
*(Students permitted by the Department Chair to waive this requirement must take ENGL 333 Critical Writing.)*

#### One (1) of the following writing or journalism courses:

ENGL 225      Introduction to Journalism  
 ENGL 280      Persuasive Writing  
 ENGL 282      Creative Writing  
 ENGL 283      Writing Poetry  
 ENGL 284      Creative Nonfiction  
 ENGL 286      Professional Writing  
 ENGL 288      Writing Fiction  
 ENGL 311      Writing About Science  
 ENGL 331      News Writing  
 ENGL 333      Critical Writing  
 ENGL 335      Feature Writing  
 ENGL 371      Business Writing  
 ENGL 377      Writing for Online and Social Media  
 ENGL 410      Seminar in Creative Writing  
 ENGL 411      Seminar in Prose Writing

#### Literature Group A (Early British): One (1) course from the following:

ENGL 220      Shakespeare  
 ENGL 251      British Literature I: Old English to 1680  
 ENGL 313      Medieval and Renaissance Drama  
 ENGL 314      English Renaissance Literature  
 ENGL 317      Studies in Shakespeare  
 ENGL 375      Studies in British Literature through 1680  
 ENGL 407      Chaucer

**Literature Group B (Modern British): One (1) course from the following:**

ENGL	255	British Literature II: 1680 to 1890
ENGL	232	Irish Literature
ENGL	318	British Romanticism
ENGL	321	Rise and Establishment of the English Novel
ENGL	322	The Nineteenth-Century British Novel
ENGL	330	Victorian Period
ENGL	374	Modern British and American Poetry (may be used for Group B or C but not both)
ENGL	381	Contemporary Irish Literature
ENGL	386	Studies in British Literature after 1680

**Literature Group C (American): Two (2) courses in American literature:**

ENGL	243	American Short Story
ENGL	260	American Ethnic Literature
ENGL	261	American Writers I
ENGL	262	American Writers II
ENGL	264	African American Literature
ENGL	353	Whitman, Dickinson, and Frost
ENGL	365	American Romanticism
ENGL	368	American Realism and Naturalism
ENGL	370	Studies in American Literature
ENGL	373	Modern American Fiction
ENGL	374	Modern British and American Poetry (may be used for Group B or C but not both)
ENGL	383	Contemporary American Literature
ENGL	384	Contemporary American Poetry

**Literature Group D: One (1) course from Non-United States and Non-British Literature to 1900:**

ENGL	202	Comparative Mythology
ENGL	265	Western Literature: Origins to the Renaissance
ENGL	266	Western Literature: Renaissance to the Present
ENGL	271	Development of the Drama
ENGL	319	The Nineteenth-Century European Novel
ENGL	345	Studies in the Bible as Literature
ENGL	378	Studies in World Literature through 1900

**Literature Group E: One (1) course from Non-United States and Non-British Literature after 1900:**

ENGL	203	Contemporary Global Literature
ENGL	277	Gender in Contemporary Global Literature
ENGL	326	The Novel and the World
ENGL	342	Modern Drama
ENGL	361	Postcolonial Literature

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ENGL	362	Russian Literature in Translation
ENGL	376	The Twentieth-Century Novel
ENGL	382	Contemporary European Literature
ENGL	398	Studies in World Literature after 1900

**Capstone:**

ENGL	422	Seminar in Literature
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**Other Courses (to total twelve) from above or from the following areas:**

ENGL	111	Reading Literature*
ENGL	118	Monsters*
ENGL	124	Literature and Social Justice*
ENGL	132	Alternate Pasts*
ENGL	150	Rebels and Revolution*
ENGL	186	Banned Books*
ENGL	201	Mythology and Folklore
ENGL	206	Film and Literature
ENGL	207	The Language of Film
ENGL	208	Film Genres
ENGL	209	Film History: 1895 to 1960
ENGL	229	Film History: 1960 to Present
ENGL	234	Global Cinema
ENGL	250	Literature and Gender
ENGL	297	English Grammar: A Structural Analysis
ENGL	325	Studies in Film
ENGL	375	Studies in British Literature
ENGL	390	Studies in Genre
ENGL	401	The English Language
ENGL	490	Independent Study in English

One Children's Literature course chosen from the following (only one course in this area may be counted toward the 12 courses required for the major):

ENGL	212	Children's Literature
ENGL	217	The History of Children's Literature
ENGL	320	Young Adult Literature
ENGL	399	Current Trends in Children's Literature

*\*Not open to students with junior or senior standing in the English major or Interdisciplinary Major with Specialization in Language Arts (UIDE). Students may count only one (1) of these courses towards the English major if taken prior to the junior year.*

*All English majors must take four (4) literature courses at the 300- or 400-level in addition to ENGL 422 Seminar in Literature. One of the four (4) courses may be a 300-level film course. Children's literature courses do not satisfy this requirement. Students should focus on 300- and 400-level courses in the junior/senior years.*

**Foreign Language Requirement:**

Minimum of elementary knowledge of one foreign language required (0-2 courses). The Elementary Level may be met in one of several ways: 1) completion of a college-level Elementary II or above language course; 2) language placement test score of 65 or higher; 3) waiver from the Chair of the World Department if high school academic language is other than English (usually applies to international students); achievement of Level 4 in a single language in high school.

**CONCENTRATIONS****CONCENTRATION IN CHILDREN'S AND YOUNG ADULT LITERATURE (UENL)****Minimum of 15 courses, as follows:****Twelve (12) required courses for the major, plus four (4) of the following:**

ENGL	212	Children's Literature
ENGL	217	The History of Children's Literature
ENGL	300	Writing for Children
ENGL	329	Young Adult Literature
ENGL	399	Current Trends in Children's Literature

*Note: No more than one of these courses may be used to fulfill both the requirement of twelve courses in English and four courses for this concentration.*

**CONCENTRATION IN CREATIVE WRITING (UENC)****Minimum of 15 courses, as follows:****Twelve (12) required courses for the major, plus four (4) of the following:**

ENGL	282	Creative Writing
ENGL	283	Writing Poetry
ENGL	284	Creative Nonfiction
ENGL	288	Writing Fiction
ENGL	300	Writing for Children
ENGL	410	Seminar in Creative Writing
ENGL	411	Seminar in Prose Writing

*Note: No more than one of these courses may be used to fulfill both the requirement of twelve courses in English and four courses for this concentration.*

**CONCENTRATION IN FILM STUDIES (UENF)****Minimum of 15 courses, as follows:****Twelve (12) required courses for the major, plus four (4) of the following:**

ENGL	206	Film and Literature
ENGL	207	The Language of Film
ENGL	208	Film Genres
ENGL	209	Film History: 1895 to 1960
ENGL	229	Film History: 1960 to Present
ENGL	234	Global Cinema
ENGL	325	Studies in Film

*Note: No more than one of these courses may be used to fulfill both the requirement of twelve courses in English and four courses for this concentration.*

**CONCENTRATION IN JOURNALISM (UENJ)****Minimum of 15 courses as follows:****Twelve (12) required courses for the major, plus the following four (4):**

ENGL	225	Introduction to Journalism
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ENGL 331 News Writing

**One (1) of the following:**

ENGL 335 Feature Writing

ENGL 377 Writing for Online and Social Media

ENGL 481 Editorial Workshop in Journalism **or**

ENGL 496 Internship in Journalism

**Capstone (whichever one was not taken above):**

ENGL 481 Editorial Workshop in Journalism **or**

ENGL 496 Internship in Journalism

*Note: One of the above courses, except for the internships, may be used to fulfill the requirements of both the twelve courses in English and the four courses for this concentration.*

**MAJOR WITH CONCENTRATION IN PROFESSIONAL WRITING (UENP)**

**Minimum of 15 courses as follows:**

**Twelve (12) required courses for the major, plus four (4) professional writing courses:**

ENGL 286 Professional Writing

ENGL 371 Business Writing **or**

ENGL 372 Technical Writing

ENGL 495 Internship in English

**One additional writing course from the following:**

ENGL 225 Introduction to Journalism

ENGL 280 Persuasive Writing

ENGL 311 Writing About Science

ENGL 335 Feature Writing

ENGL 371 Business Writing

ENGL 372 Technical Writing

ENGL 377 Writing for Online and Social Media

ENGL 495 Internship in English

*Note: No more than one of these courses may be used to fulfill both the requirement of twelve courses in English and three courses for this concentration. Eligible students are strongly encouraged to take ENGL 495 Internship in English as one of their professional writing courses.*

**MAJOR WITH CONCENTRATION IN WRITING (UENW)**

**Minimum of 15 courses, as follows:**

**Twelve (12) required courses for the major, plus four (4) of the following:**

ENGL 225 Introduction to Journalism

ENGL 280 Persuasive Writing

ENGL 282 Creative Writing

ENGL 283 Writing Poetry

ENGL 284 Creative Nonfiction

ENGL 286 Professional Writing

ENGL	288	Writing Fiction
ENGL	311	Writing About Science
ENGL	331	News Writing
ENGL	333	Critical Writing
ENGL	335	Feature Writing
ENGL	371	Business Writing
ENGL	372	Technical Writing
ENGL	377	Writing for Online and Social Media
ENGL	410	Seminar in Creative Writing
ENGL	411	Seminar in Prose Writing
ENGL	481	Editorial Workshop in Journalism
ENGL	495	Internship in English
ENGL	496	Internship in Journalism

*Note: No more than one of these courses may be used to fulfill both the requirement of twelve courses in English and four courses for this concentration.*

## **MAJOR WITH CONCENTRATION IN TEACHING AND MINOR IN SECONDARY EDUCATION (UENT) (INITIAL LICENSURE)**

### **I. General Education requirements**

### **II. English major requirements (12 courses)**

ENGL	204	Literary Study
ENGL	251	(Group A)
ENGL	255	(Group B)
Two courses from Group C		
One course from Group D		
One course from Group E		
ENGL	333	Critical Writing
ENGL	401	The English Language
ENGL	422	Seminar in Literature
Two (2) English electives		

### **III. Completion of second semester intermediate foreign language or equivalent**

### **IV. High School or Middle School**

COMM	107*	Effective Speaking <b>or</b>
COMM	115*	Introduction to Speech Communication
PSYC	200*	Psychology of Development

*\*Note: These courses may be used to fulfill General Education requirements.*

### **V. Education Requirements:**

#### **High School:**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion

EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	315	Professional Preparation and Field Study II - General and Discipline-Specific Methods for High School
EDUC	410	Student Teaching Practicum and Seminar I - High School (2 Course-credits)
EDUC	411	Student Teaching Practicum and Seminar II - High School (2 Course-credits)

**Middle School:**

EDUC	200	Education in American Society with Field Study I
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	316	Professional Preparation and Field Study II - General and Discipline-Specific Methods for Middle School (2 Course-credits)
EDUC	414	Student Teaching Practicum and Seminar I-Middle School (2 Course-credits)
EDUC	415	Student Teaching Practicum and Seminar II-Middle School (2 Course-credits)

*See Education Department section on the catalog for further information on teacher education.*

## **COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION**

The Department of English sponsors two programs for students pursuing licensure in early childhood or elementary education. One is the Interdisciplinary Major in Language Arts, as described in the Education section of this catalog. A second option is a major in English, combined with the Coordinate Major in Education, as outlined below.

Students must satisfy the general education requirement, the English major requirement of twelve (12) courses plus the foreign language requirement, and the early childhood or elementary education requirement of five (5) courses plus the professional semester. With careful planning, students may complete this program within 32 course-credits.

### **I. General Education requirement**

### **II. English major requirements (12 Courses)**

### **III. Choose A or B**

#### **A. Coordinate Major in Early Childhood Education (Pre-K - Grade 2 Licensure)**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	320	The Young Child: Emergent Literacy with Field Study II
EDUC	374	Early Childhood Curriculum: Mathematics and Science with Field Study III
EDUC	376	Early Childhood Curriculum: Reading, Social Studies and Special Needs
PSYC	200	Psychology of Development (Gen.Ed.)

#### **The Professional Semester (four courses):**

EDUC	431	Early Childhood Professional Practicum A (2 Course-credits)
EDUC	432	Early Childhood Professional Practicum B (2 Course-credits)

### **B. Coordinate Major in Elementary Education (Grades 1-6 Licensure)**

EDUC	200	Education in American Society with Field Study I
EDUC	322	The Child and Literacy with Field Study II
EDUC	341	Elementary Curriculum: Mathematics with Field Study III
EDUC	346	Elementary Curriculum: Science, Social Studies and Special Needs
PSYC	200*	Psychology of Development (Gen.Ed.)

#### **The Professional Semester (four courses):**

EDUC	437	Elementary Professional Practicum A (2 Course-credits)
EDUC	438	Elementary Professional Practicum B (2 Course-credits)

*\*Note: PSYC 200 Psychology of Development may be used to fulfill the Domain General Education requirement.*

### **IV. Minor Requirement**

No minor is required for students with a Coordinate Major in Early Childhood or Elementary Education. But, if a student so wishes, a minor is possible with careful planning.

### **COORDINATE EDUCATION MAJOR WITH INTERDISCIPLINARY MAJOR: SPECIALIZATION IN LANGUAGE ARTS (UIDE) (Home Department-English)**

The English Department sponsors the Interdisciplinary Studies Specialization in Language Arts for students seeking licensure at the early childhood or elementary level. For more specific information, refer to the Education section of the catalog.

## **MINORS**

### **MINOR IN ENGLISH (6 COURSES)**

ENGL	110	Expository Writing or completion of Gen.Ed. Domain Common Core Writing
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Choose five (5) English courses acceptable for the English major. Students may count one (1) 100-level course towards the required five (5) additional courses if taken prior to their junior year.

### **MINOR IN FILM STUDIES (5 COURSES)**

ENGL	110	Expository Writing or completion of Gen.Ed. Domain Common Core Writing
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ENGL	207	The Language of Film
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Three (3) courses from the following:

ENGL	206	Film and Literature
ENGL	208	Film Genres
ENGL	209	Film History: 1895 to 1960
ENGL	229	Film History: 1960 to Present
ENGL	234	Global Cinema
ENGL	325	Studies in Film



**MINOR IN JOURNALISM (5 COURSES)**

ENGL 110 Expository Writing **or** completion of  
Gen.Ed. Domain Common Core Writing

ENGL 225 Introduction to Journalism

ENGL 331 News Writing

One (1) of the following:

ENGL 335 Feature Writing

ENGL 377 Writing for Online and Social Media

ENGL 481 Editorial Workshop in Journalism **or**

ENGL 496 Internship in Journalism

Capstone (whichever was not taken above):

ENGL 481 Editorial Workshop in Journalism **or**

ENGL 496 Internship in Journalism

**MINOR IN PROFESSIONAL WRITING (5 COURSES)**

ENGL 110 Expository Writing or completion of  
Gen.Ed. Domain Common Core Writing

ENGL 286 Professional Writing

ENGL 371 Business Writing **or**

ENGL 372 Technical Writing

ENGL 495 Internship in English

One additional writing course from the following:

ENGL 225 Introduction to Journalism

ENGL 280 Persuasive Writing

ENGL 311 Writing About Science

ENGL 335 Feature Writing

ENGL 371 Business Writing

ENGL 372 Technical Writing

*Note: Eligible students are strongly encouraged to take ENGL 495 Internship in English as one of their professional writing courses.*

**MINOR IN WRITING (5 COURSES)**

ENGL 110 Expository Writing or completion of  
Gen.Ed. Domain Common Core

Choose four (4) additional advanced English writing courses.

**MINOR IN AMERICAN STUDIES (5 COURSES)**

To earn an American Studies minor, students must apply in writing to the Chair of either the English or History Department and have a sequence of courses designed and approved to meet specific goals. Applications are available in either Chair's office. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No American Studies minor will be awarded without compliance with the above format.

The minor in American Studies requires five (5) courses representing at least three (3) disciplines, distributed as follows:

A. One (1) of the following courses in American literature:

ENGL 243 The American Short Story

ENGL 261 American Writers I

ENGL 262 American Writers II

B. One (1) of the following courses in American history:

HIST 326 Women in American History

C. A total of three (3) courses from at least two of the following disciplines: *(At least three disciplines must be represented in the total of five courses.)*

**Art & Music**

ARTH 282 American Art

MUSC 141 American Musics

MUSC 151 The History and Literature of Jazz

**Economics**

ECON 101 Principles of Macroeconomics

ECON 102 Principles of Microeconomics

ECON 230 Urban Economics

**English**

ENGL 243 The American Short Story

ENGL 260 American Ethnic Literature

ENGL 261 American Writers I

ENGL 262 American Writers II

ENGL 353 Whitman, Dickinson, and Frost

**Geography**

GEOG 251 Geography of New England

**Biology**

BIOL 103 Ecological Implications of Conservation

**History**

HIST 151 United States History to Reconstruction

HIST 152 United States History since Reconstruction

HIST 308 American Civil War Era

HIST 310 Emergence of a Modern Nation

HIST 321 Immigrants, Ethnic, and Racial Minorities  
in the United States

**Sociology**

SOCI 130 Social Problems

SOCI 251 Cities and Communities

SOCI 267 Sociology of Subcultures

SOCI 315 Social Class

SOCI 340 Sociology of Work

**Interdisciplinary/Interdepartmental:**

INTD 490 Independent Study in American Studies  
(see *INTERDISCIPLINARY COURSES* for course description)

**MINOR IN SCIENCE COMMUNICATION (SCM) (5 COURSES)**

The University offers a minor in Science Communication. To declare a Science Communication minor, students must complete the appropriate form and obtain the signature of one of the following department chairs: Communication Arts, English, or Physics and Earth Sciences. Students should meet with an advisor in the minor to design a plan for completing the minor. The specific courses taken depend in part on the student's major. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No Science Communication minor will be awarded without compliance with the above format.

The minor in Science Communication consists of three (3) required courses, one (1) additional course in written, oral, or visual communication, and one (1) additional science course beyond the General Education requirements of Domain II-B, as follows:

**The minor requires five (5) courses as follows:****A. Three (3) required courses:**

COMM	215	Science Communication (Gen. Ed. Domain III-B)
ENGL	311	Writing about Science
SCOM	495	Internship in Science Communication

*\* Upon request, internships will be arranged for students who meet the prerequisites for SCCO 495. Application and deadline information is available on the program website.*

**B. One additional course in written, oral, or visual communication:**

*Note: Science Communication is an interdepartmental minor, and as such, students may only take one course from their major to count toward this minor. Accordingly, Communication Arts majors may not take courses in this group with a COMM prefix and English majors may not take courses with an ENGL prefix to satisfy requirements for this minor.*

COMM	107	Effective Speaking (Gen. Ed. Domain I-A)
COMM	130	Introduction to Visual Communication (Gen. Ed. Domain I-B)
COMM	200	Design for Integrated Media
COMM	201	Oral Interpretation of Literature (Gen. Ed. Domain I-B)
COMM	213	Advanced Public Speaking
COMM	214	Introduction to Acting (Gen. Ed. Domain I-A)
COMM	226	Writing for Visual Media (Gen Ed. Domain I-A)
COMM	260	Voice and Articulation
COMM	280	Introduction to Film Production (Gen. Ed. Domain I-A)
COMM	328	Argumentation and Advocacy
ENGL	225	Introduction to Journalism
ENGL	280	Persuasive Writing
ENGL	286	Professional Writing
ENGL	335	Feature Writing
ENGL	377	Writing for Online and Social Media

**C. One (1) additional science course beyond the General Education requirements of Domain II-B:**

*Upon completion of Domain II-B General Education Requirements, students must take one (1) other science course from the list below. The course must have a prefix different from their major and from the other General Education courses they have completed.*

ASTR	123	Practical Astronomy
ASTR	220	The Solar System
ASTR	230	Stars and Galaxies
BIOL	101	Biological Concepts (with Lab) <b>or</b> BIOL 109 Introduction to Biological Science (with Lab) <b>or</b> BIOL 130 Principles of Biology (with Lab)
BIOL	103	Biological Perspectives on Environmental Issues
BIOL	112	Biology of Marine Organisms (with Lab)
BIOL	114	A Human Perspective on Genetics
BIOL	142	Introduction to Human Biology (with Lab)
BIOL	160	Introduction to Organismal Biology with Lab
BIOL	203	Plants and Society
CHEM	101	The Chemistry of Life
CHEM	103	General Chemistry (with Lab)
CHEM	107	Principles of Chemistry (with Lab)
CHEM	108	Principles of Chemistry & Quantitative Analysis (with Lab)
CHEM	131	Science – Environment and Health (with Lab)
EASC	131	Conversations with the Earth: An Introduction to Geology
EASC	241	Introduction to Meteorology
EASC	246	Oceanography (Gen. Ed. Domain II-B)
ENVS	101	Introduction to Environmental Science
FDSC	151	Principles of Food Science
FDSC	161	Introduction to Food Science and Technology (with Lab)
GEOL	231	Physical Geology (with Lab)
GEOL	232	Historical Geology: The Evaluation of Earth and Life Through Deep Time (with Lab)
NUTR	205	Nutrition Science and Applications
PHSC	109	Introduction to Physical Science (with Lab)
PHYS	111	Physics, Nature and Society (with Lab)
PHYS	201	Introductory Physics (with Lab)
PHYS	211	Principles of Physics I (with Lab)

*NOTE: Students in this minor are also recommended to take a course in statistics.*

## DESCRIPTION OF ENGLISH COURSE LEVELS

In addition to being grouped by distribution areas (i.e., British literature, American literature, world literature, and so forth), English Department courses are arranged in tiers that assume different levels of preparation, background, and experience.

100-level courses are foundation courses in literature and composition. They assume little or no previous experience in the subject and include ENGL 110 Expository Writing, a college-wide requirement. 100-level courses are offered each semester.

200-level courses examine a broad range of material and various literary traditions, periods, and genres. These include historical overviews in British, American, and world literatures; genre studies; writing and journalism courses; women's studies; language studies; ethnic literature; film studies; and ENGL 204 Literary Study, a required seminar for English majors that should be taken in the first year or as early in the student's career as possible. Literature courses at this level include a research component. Most of these courses are offered each semester or once a year; a few are normally offered every other year.

300-level courses are increasingly specialized courses that provide breadth of coverage with a more detailed and rigorous study of the material. These courses presuppose some background and experience in literature, as well as proficiency in close reading, analytical thinking, and expository writing. Writing assignments include essays that integrate research and close readings of texts. A few of these courses are offered once a year, but most are offered only every other year.

400-level courses are advanced courses primarily intended for juniors and seniors. Most classes are conducted as a workshop or seminar in which students are responsible for oral reports and in-class presentations. Student papers are required to demonstrate mastery in research techniques, familiarity with various critical methodologies, and ability to synthesize disparate materials. Independent studies, practica, and Seminar in Literature are offered each semester; writing courses are offered every year or every other year; language and literature courses vary from once a year to once every three years.

#### **ENGLISH COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.):**

<b>Courses</b>	<b>Domain(s)</b>
ENGL 110 Expository Writing	Common Core Writing
ENGL 111 Reading Literature	I-B
ENGL 118 Monsters	I-B
ENGL 124 Literature and Social Justice	III-C
ENGL 132 Alternate Pasts	I-B
ENGL 150 Rebels and Revolution	I-B
ENGL 186 Banned Books	I-B
ENGL 201 Mythology and Folklore	I-B
ENGL 203 Contemporary Global Literature	III-B
ENGL 207 The Language of Film	I-B
ENGL 209 Film History: 1895 to 1960	III-A
ENGL 220 Shakespeare	I-B
ENGL 232 Irish Literature	I-B
ENGL 243 The American Short Story	I-B
ENGL 250 Literature and Gender	I-B
ENGL 260 American Ethnic Literature	III-C
ENGL 262 American Writers II	I-B
ENGL 264 African American Literature	III-C
ENGL 282 Creative Writing	I-A

**ENGLISH COURSE DESCRIPTIONS****ENGL 100 Introduction to College Writing**

A course that prepares students for ENGL 110 Expository Writing. Course work emphasizes critical reading and thinking, the writing process, the structure and development of paragraphs and essays, and the conventions of college-level academic writing. Note: Successful completion of this course with a grade of C- or above is required before entering ENGL 110 Expository Writing. *NOTE: Credit is given for this course only if taken before ENGL 110 Expository Writing.*

**ENGL 110 Expository Writing (Gen. Ed. Common Core)**

Designed to improve the writing of expository prose needed in college and beyond. The emphasis rests on collecting, evaluating, and organizing evidence from primary and secondary sources in order to support an explicit, arguable, and substantive thesis. The course includes the writing of a well-researched and documented paper that draws on traditional and electronic sources. *Note: Credit will not be given for this course and ENGL 102 Essentials of Writing. Students must earn a C- or better to pass ENGL 110 Expository Writing, and entering students must complete this course within their first three (3) semesters. Credit is given for both this course and ENGL 100 Introduction to College Writing if ENGL 100 Introduction to College Writing is taken first.*

Prerequisite: Satisfactory performance on the English writing and reading placement exams or a grade of C- or better in ENGL 100 Introduction to College Writing.

**ENGL 111 Reading Literature (Gen. Ed. Domain I-B)**

An introduction to critical reading and discussion of poetry, prose, and drama for the purpose of increasing the student's appreciation of the dynamics between themes and forms in the art of literature. Some sections emphasize literary forms and others philosophical, moral, or social themes.

**ENGL 118 Monsters (Gen. Ed. Domain I-B)**

An exploration of literature about monsters and the monstrous. Readings include a variety of texts that encourage us to think about how and why monsters, specters, and creatures are a long-standing staple of both our literary and cultural imaginations. *Note: This course is not open to students with junior or senior standing in the English major, English minor, or Interdisciplinary Major with Specialization in Language Arts (UIDE).*

**ENGL 124 Literature and Social Justice (Gen. Ed. Domain III-C)**

An exploration of literature's role in raising awareness about and engaging with civil rights and human rights. How can literary artistry encourage us to imagine the complexity of social justice issues? Readings address topics such as racism, sexism, poverty, religious discrimination, genocide, and children's rights. *Note: This course is not open to students with junior or senior standing in the English major, English minor, or Interdisciplinary Major with Specialization in Language Arts (UIDE).*

**ENGL 132 Alternative Pasts (Gen. Ed. Domain I-B)**

An introduction to the study of literature, focusing on literary texts that examine our relationship with the past. What stories do writers pass on to future generations, and why? Students explore how those stories illuminate or contradict each other, how they differ from official records, and how writers balance fact, interpretation, and imagination. *Note: This course is not open to students with junior or senior standing in the English major, English minor, or Interdisciplinary Major with Specialization in Language Arts (UIDE).*

**ENGL 150 Rebels and Revolution (Gen. Ed. Domain I-B)**

An exploration of literature about rebels who defy the established social order. Students engage with a variety of texts while gaining a perspective on the representation of resistance in literature. *Note: This course is not open to students with junior or senior standing in the English major, English minor, or Interdisciplinary Major with Specialization in Language Arts (UIDE).*

**ENGL 186 Banned Books (Gen. Ed. Domain I-B)**

An exploration of literature that has been censored, banned or challenged for sexual, racial, religious, political, or violent content. Students examine how and why texts generate controversy. *Note: This course is not open to students with junior or senior standing in the English major, English minor, or Interdisciplinary Major with Specialization in Language Arts (UIDE).*

**ENGL 201 Mythology and Folklore (Gen. Ed. Domains I-B)**

A comparative analysis of myths and folklore from various cultures, such as Native American, Greek, American, Teutonic, and African American. A significant part of the exploration deals with issues of class and race, as well as gender problems like female-male stereotyping. Other topics may include postulation of common types of tales and motifs, theories of the origin and nature of myth and folklore, as well as consideration of each myth or folklore piece as representative not only of its genre but also a possibly intact unified structure.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 202 Comparative Mythology**

A comparative study of primarily ancient myths through the Western and non-Western world, emphasizing such sources as Indian, Mayan, Finnish, Native American, Near Eastern, and Greek. Each belief system is first studied by itself before resemblances to other systems are sought. Finding elements that recur in a myth and that appear in other myths leads to considering the origin and nature of myth, as well as the significance of myth for a group of people.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 203 Contemporary Global Literature (Gen. Ed. Domains III-B)**

An introduction to contemporary literature that engages with global issues with a focus on non-Western texts. The course may also include Western writings which highlight international encounters between cultures. Topics may include diaspora, national and transnational identities, and globalization. Readings are in English and draw on various genres.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 204 Literary Study**

The foundation course for the major in English. This seminar focuses on close reading, analytical writing, and research methods. Students examine in depth one important work in English (or a group of related works) and the criticism surrounding it. English majors are encouraged to take Literary Study as early as possible. Literary Study is a prerequisite for all 300-level English courses used to fulfill 300-level requirements.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing); for students not in the English major/minor or the Interdisciplinary Major in Language Arts, permission of the instructor is required.

**ENGL 206 Film and Literature**

An examination of the relationship between film and literature with a close analysis of the aesthetic and practical problems involved in adapting fiction to the film. Readings include film and literary criticism, as well as the fiction upon which films viewed in class are based. Discussions focus on the potentialities, limitations and nature of each art form.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 207 The Language of Film (Gen. Ed. Domain I-B)**

A study of the vocabulary proper to an intelligent discussion of film. Topics to be included are directorial techniques, the role of editing, styles of film acting, the relation of one shot to another, mise-en-scene and montage, lighting, and the relationship between form and content. Emphasis is on an aesthetic of the film from the perspective of the film-viewing experience.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 208 Film Genres**

Studies of genre films concentrating on the historical, thematic, and specifically cinematic nature of representative sound and silent works. Possible genres include comedy, the western, the gangster film, the musical, the horror film and science fiction, and the "woman's picture." A different genre is selected each time the course is offered.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 209 Film History: 1895 to 1960 (Gen. Ed. Domain III-B)**

An overview of the major developments in film history from 1895 to 1960. Starting with early filmic experimentation and covering the rise and fall of the classical Hollywood studio system, the course includes significant directors, genres (such as the gangster film and film noir), and international movements. Wars, revolution, immigration, the Great Depression, and the Cold War are studied for their influence on the new medium of film. Note: Students may not receive credit for both ENGL 209 Film History: 1895 to 1960 and ENGL 205 Film History and Criticism.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 212 Children's Literature**

A study of literature for children from pre-school through grade 6. The course examines classic and contemporary board books, picture books, chapter books, and pre-adolescent texts. Through an exploration of seminal authors, works, genres, and criticism, the course emphasizes trends and developments in children's literature. An introduction to basic bibliographic tools and review media is included.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 217 The History of Children's Literature**

A survey of children's literature from the eighteenth century to the present. Topics may include early chapbooks, picture books, and the development of the novel for children. Students examine changing representations of the child and the role literature has played in defining childhood.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 220 Shakespeare (Gen. Ed. Domains I-B)**

An introduction to Shakespearean comedy, tragedy, history, and romance in such plays as *As You Like It*, *Measure for Measure*, *King Lear*, *Othello*, *Henry V*, and *The Tempest*. The course explores the Elizabethan-Jacobean roots of Shakespeare's plays and their continuing popularity by studying language, dramatic technique, performance on stage and screen, and the representation of gender, race, and class. Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 225 Introduction to Journalism**

An introduction to the profession of journalism providing historical background, basis for libel, and other fundamental, technical and legal knowledge for journalists. Students produce extensive writing in a variety of journalistic formats, such as news, features, and op/ed pieces. The course also investigates current issues in contemporary journalism by analyzing a wide range of newspapers.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 229 Film History: 1960 to Present**

A study of film history from 1960 to the present. The course includes the New Hollywood, independent cinema, the emergence of postcolonial filmmaking in Africa, South America, the Indian subcontinent, and Asia; and technological innovations such as CGI. Major directors and their groundbreaking films are studied, as is the visual style of postmodernism. **Note:** *Students may not receive credit for both ENGL 229 Film History: 1960 to Present and ENGL 205 Film History and Criticism.*

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 232 Irish Literature (Gen. Ed. Domain I-B)**

A consideration of the development of Irish literature from its origins in myth, saga, and lyric through the twentieth century, with emphasis on the period from the Literary Revival in the late nineteenth century to the present. Among the writers covered are Swift, William Carleton, Maria Edgeworth, Thomas Moore, Yeats, Synge, O'Casey, Joyce and Beckett.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 234 Global Cinema**

An exploration of films from around the world within their unique cultural contexts. The course examines global films' styles and themes, analyzing their relationship to the social and political conditions that produced them. Topics vary each time the course is offered, focusing on an individual country, a region, a theme, a director, or a historical period.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.



**ENGL 243 The American Short Story (Gen. Ed. Domain I-B)**

A survey of the short story in America from Irving, Poe, and Hawthorne to the present with emphasis on writers who reflect various regions, cultures, and ethnic groups.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 250 Literature and Gender (Gen. Ed. Domain I-B)**

An exploration of the relations between gender and literature as they pertain to authorship, literary representations of men and women, constructions of masculinity and femininity, and literary criticism. Topics vary and may include the literature of a particular period or country, a specific genre, and gay and lesbian literature.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 251 British Literature I: Old English to 1680**

A chronological study of British literature that focuses on representative works and authors through 1680. Readings include *Beowulf*, selections from Chaucer's *The Canterbury Tales*, one Shakespeare play, and selections from other writers such as Malory, Spenser, Sidney, Donne, Cary, and Milton. Works are explored in the context of the literary, cultural, and historical milieu in which they were produced.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 255 British Literature II: 1680-1890**

A chronological study of British literature from the Restoration to the Late Victorian period that focuses on representative works and authors. Readings include selections from such writers as Behn, Swift, Johnson, Wordsworth, Coleridge, Austen, Byron, the Brontes, Shelley, Keats, Tennyson, Arnold, Browning, and George Eliot. Works are explored in the literary, cultural, and historical milieu in which they were produced.

**Note:** ENGL 251 *British Literature I* is not a prerequisite to this course.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 260 American Ethnic Literature (Gen. Ed. Domains III-C)**

A study of Native American, African American, Asian American, Hispanic American, and other ethnic writers. The course explores issues of individual and collective identity, as well as the tension between assimilation and ethnic affirmation in the works of writers throughout American history. **Note:** Students who have taken 21.260 *Minority Literature* will not receive credit for this course.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 261 American Writers I**

A survey of literature from the age of European exploration to the middle of the nineteenth century. The course reflects the diversity and range of American experience. Readings may include letters and journals of early discoverers, explorers, and settlers; selections from the Native American oral tradition; essays by Ralph Waldo Emerson, Margaret Fuller, and Henry David Thoreau; autobiographies by Frederick Douglass and Harriet Jacobs; and poetry and fiction by writers ranging from Anne Bradstreet to Herman Melville.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 262 American Writers II (Gen. Ed. Domains I-B)**

A survey of literature since the middle of the nineteenth century. The course reflects the diversity and range of American experience. Readings may include memoirs, criticism, poetry, fiction, or drama by authors such as Emily Dickinson, Mark Twain, Willa Cather, T.S.Eliot, William Faulkner, Tennessee Williams, and James Baldwin. **Note:** ENGL 261 *American Writers I* is not a prerequisite for this course.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 264 African American Literature (Gen. Ed. Domains III-C)**

A study of the fiction and non-fiction of African Americans throughout American history, including characteristic literary forms such as the slave narrative, autobiography, and song. The course focuses on such writers as Wheatley, Douglass, Jacobs, Washington, DuBois, Hurston, Toomer, Hughes, Baldwin, Wright, Ellison, King, Malcolm X, Walker, Morrison, and Wilson.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 265 Western Literature: Origins to the Renaissance**

A course designed to acquaint students with the foundations of western literature and with great writers of western civilization from antiquity through the Renaissance. Representative selections from such authors as Homer, Plato, Virgil, Dante, Boccaccio, Machiavelli, and Rabelais, as well as such works as the Bible, Greek drama, the medieval epic and romance are studied.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 266 Western Literature: Renaissance to the Present**

A study of great continental writers of western civilization from the Enlightenment to the present. Representative selections from such writers as Voltaire, Rousseau, Goethe, Dostoevsky, Flaubert, Tolstoy, Ibsen, Kafka, Mann, Camus, and Duras are studied. Note: ENGL 265 Western Literature: Origins to the Renaissance is not a prerequisite for this course.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 269 Women Writers**

A study of women writers from the medieval to the modern period in the context of their times and literary traditions. Topics vary and include exploration of a specific period; a genre such as life writing, romance, and poetry, or a cultural milieu such as literary circle, place, or family.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 271 Development of the Drama**

A study of the drama as an art form from its genesis in classical antiquity through its most recent expressions. Representative plays illustrating this development are read and discussed and students are encouraged to prepare selected scenes for class presentation. Related topics touched on include history of the theater and the literature of dramatic criticism.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 277 Gender in Contemporary Global Literature (Gen. Ed. Domain III-B )**

An examination of international late twentieth and early twenty-first century texts that engage gender issues in cross-cultural contexts. The course employs a variety of critical approaches such as feminism, postcolonialism, queer theory, and gender studies.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 280 Persuasive Writing**

An introduction to effective persuasive writing for public audiences. Students study rhetorical principles and examples of persuasive writing and develop their own projects which may include op-ed columns, blog writing, and policy proposals. At least one project is sent directly to its intended public audience. Particular attention is paid to ethical rhetorical practices.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 282 Creative Writing**

A study of the methods and techniques of creative writing, with emphasis on the variety of forms used in contemporary literature. Students are encouraged to experiment both in prose and poetry in order to develop new strategies to express their experiences and feelings. Students read manuscripts in class.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 283 Writing Poetry**

A workshop in reading and writing poetry, with an emphasis on personal expression, free verse technique, and contemporary adaptations of traditional forms. Some attention is also given to techniques developed by contemporary poets for teaching poetry to children and adolescents.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 284 Creative Nonfiction**

A study in writing non-fiction prose, including narration, description, and exposition, to help students improve their general ability to communicate experiences, observations, and thoughts.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 286 Professional Writing**

A career-oriented course introducing students to a wide variety of writing formats used in business, government, and the professions. Assignments may include resumes, employment documents, letters and memos, short proposals, a variety of report formats, public relations and advertising documents, and basic technical writing. This course emphasizes drafting, critiquing, rewriting, and editing, as well as collaborative writing and presentation skills.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 288 Writing Fiction**

A workshop in reading and writing short fiction with an emphasis on writing from personal experience, use of traditional and contemporary forms, and developing narrative voice, characters, plot, and setting.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 297 English Grammar: A Structural Analysis**

An intensive analysis of the theory and practice of English grammar. The effects of syntactic structure upon meaning in such phenomena as dependent clauses, prepositional phrases, nouns and verbs, subjects, objects, and modifiers are explored in order to understand a grammatical description of English.

Prerequisite: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) or permission of the instructor.

**ENGL 300 Writing for Children**

An advanced writing workshop in the methods and techniques of writing for children. Students compose poetry, fiction, and prose for readers in grades Pre-K through 12. Activities include analysis of children's literature and group critiques of students' work.

Prerequisite: One course in writing beyond ENGL 110 Expository Writing, or ENGL 212 Children's Literature, or permission of the instructor.

**ENGL 311 Writing About Science**

An advanced course focused on writing about science for experts and lay audiences. Students study the purposes, audiences, and conventions of published scientific research and articles about science in popular publications and apply that understanding in their own writing. Projects may include reports, nonfiction essays, and scientific journalism. Particular attention is paid to collaboration and ethics, as well as the work of science writing professionals. Completion of or concurrent enrollment in a lab science is recommended.

Prerequisites: Completion of Common Core Writing Requirement (ENGL 110 Expository Writing) AND one of the following: COMM 215 Science Communication; any ENGL writing or journalism course; or permission of the instructor.

**ENGL 313 Medieval and Renaissance Drama**

A study of English drama from its festive, religious, and classical roots to the popular entertainments of the pre-modern era. Readings include medieval mysteries and moralities, Renaissance pastoral plays, and Elizabethan-Jacobean tragedies and comedies, with attention to such dramatists as Marlowe, Jonson, Cary, Middleton, Webster, Beaumont, and Fletcher.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 314 English Renaissance Literature**

The study of sixteenth and seventeenth-century authors who created a new national literature out of classical, continental, and native traditions. Through varying topics and study of such authors as Greene, Spenser, Sidney, Lanyer, Jonson, Wroth, Bacon, Donne, and Milton, students explore literary and cultural contexts for a rich array of genres, including lyric, romance, pastoral, essay, and allegory.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 317 Studies in Shakespeare**

An exploration of a special topic in Shakespearean drama, focusing on a theme, a genre, or a particular literary, social, or political context in selected plays. Shakespeare is studied as a poet, playwright, and thinker. Topics, which change every year, will include Shakespeare on Film, Shakespearean Families, Gender and Genre in Shakespeare, Shakespeare's Dramatic Imagery, and Shakespeare's Tragic Heroes.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 318 British Romanticism**

A critical and historical study of romanticism in English literature. Concentration is on the major poets: Wordsworth, Coleridge, Byron, Shelley, and Keats.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 319 The Nineteenth-Century European Novel**

A study of the nineteenth-century European novel which includes works from a variety of authors throughout the century such as Dostoyevsky, Flaubert, Goethe, Hugo, Sand, Stendhal, Tolstoy, and Zola.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 320 Young Adult Literature**

A study of literature for young adults ages 12 and up. The course investigates the development of a young adult canon through examination of classic and contemporary works including graphic novels, poetry, and a variety of fictional genres, such as realism, fantasy and science fiction. Students explore the aesthetic developments of young adult literature, its historical and cultural contexts, and its expression of philosophical ideas of adolescence. *Note: Students may not receive credit for both this course and ENGL 219 Young Adult Literature, 21.395 Literature for Young Adult, or 21.219 Young Adult Literature.*

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 321 Rise and Establishment of the English Novel**

A study of the beginnings, development, and tradition of the novel in England through an examination of contributing prose forms of the sixteenth and seventeenth centuries and the major authors of eighteenth century fiction such as Fielding, Smollett, and Austen.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 322 The Nineteenth-Century British Novel**

A study of the nineteenth-century British novel, including works from a variety of authors through the century, such as the Brontes, Dickens, George Eliot, Gissing, and Hardy.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 325 Studies in Film**

An exploration of a special topic in film. Topics, which change each time the course is offered, include the study of an individual director's body or work, classical or contemporary film theory, or a specific period in film history.

Prerequisite: Completion of Gen. Ed. Domain 1 and one of the following film courses: ENGL 206 Film and Literature, ENGL 207 The Language of Film, ENGL 208 Film Genres; ENGL 209 Film History: 1895 to 1960; ENGL 229 Film History: 1960 to Present; or permission of instructor.

**ENGL 326 The Novel and the World**

A study of twentieth and twenty-first century novels from outside the U.S. and Europe. The course explores responses to the European and the American novel as well as innovations that emerge from local traditions. Readings may draw from Africa, the Indian subcontinent, South America, Asia, the Middle East, Australia, and the Caribbean and novelists may include Chinua Achebe, Arundhati Roy, Gabriel García Márquez, Mo Yan, Naguib Mahfouz, Keri Hulme, and Patrick Chamoiseau. Some novels may be read in translation.

Prerequisite: ENGL 204 Literary Study or permission of instructor..

**ENGL 330 The Victorian Period**

A study of British poetry and prose (exclusive of the novel) from the 1830's to the end of the nineteenth century with emphasis on forces and influences that have helped to shape the present. Historical and social backgrounds of the literature; major philosophical ideas and conflicts; aesthetic developments; relationships with America and continental Europe.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 331 News Writing**

A rigorous examination of news writing with emphasis on accuracy, journalistic conventions, and deadlines. Students cover a variety of news events. The course explores the question "What is News?" and such issues as libel, privacy, the right to know, and freedom of information. May be used to fulfill the requirements for the English major.

Prerequisite: ENGL 225 Introduction to Journalism. Students who have taken 21.331 Reporting of Public Affairs will not receive credit for this course.

**ENGL 333 Critical Writing**

An advanced writing course designed to foster theoretically informed textual analysis. The course includes extensive study of literary theory, research, and writing about a variety of works.

Prerequisite: Completion of ENGL 204 Literary Study and two additional literature courses or permission of the instructor.

**ENGL 335 Feature Writing**

A course which emphasizes writing the feature story for newspapers and magazines. This course develops the skills to recognize a news peg that can be expanded into a feature, and studies the growth in the use of features within print journalism.

Prerequisite: ENGL 225 Introduction to Journalism.

**ENGL 342 Modern Drama**

An examination of methods and types of modern continental, British, and American drama. Critical reading and discussion of plays by such writers as Ibsen, Chekhov, Pirandello, Anouilh, Ionesco, Shaw, Miller, Williams, and Albee.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 345 Studies in the Bible as Literature**

An in-depth study of the literary art of the Bible in the context of the literature of the ancient Middle East. Focusing on specific topics, the course investigates the special literary characteristics of sacred texts, and may emphasize particular techniques (such as allusion, repetition, or parallelism) or genres (such as poetry, epic, prophecy, fable or history) within the Bible canon.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 353 Whitman, Dickinson, and Frost**

An in-depth study of the lifetime poetic achievements of Walt Whitman, Emily Dickinson, and Robert Frost, three central figures in American poetry. The course emphasizes close reading, explication, and recitation of poems, as well as research and writing about the poets, their themes and styles, and relevant cultural history.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 361 Postcolonial Literature**

A study of postcolonial literature by authors with cultural roots in South Asia, Africa, the Caribbean, and other former colonies that achieved independence in the second half of the twentieth century. Readings may include Commonwealth literature from Australia, New Zealand, and Canada; translated texts; and postcolonial criticism.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 362 Russian Literature in Translation**

A study of novels, short stories, plays, and poetry by Russian writers of the nineteenth and twentieth centuries, including Gogol, Turgenev, Dostoevsky, Tolstoy, Chekhov, Mayakovsky, Olesha, Babel, Pasternak, Solzhenitsyn, and Yevtushenko. The works are studied for the purpose of tracing the continuing concerns of the Russian writers before and after the Revolution. All readings are in English translation.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 365 American Romanticism**

A critical study of essays, novels, short stories, and poetry by some of the major American writers of the first half of the nineteenth-century. Through a consideration of writers such as Emerson, Thoreau, Hawthorne, and Poe, students explore the aesthetic developments and philosophical ideas expressed through the genre of Romanticism and its related movement, Transcendentalism. The cultural and historical background of the genre is also discussed.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 368 American Realism and Naturalism**

A critical study of works from the major American writers of the late nineteenth and early twentieth centuries, including such writers as Crane, Dreiser, James, Jewett, Twain, and Wharton. Emphasis is on the development of realism and naturalism, and on the historical, political, and cultural contexts of these literary movements.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 370 Studies in American Literature**

An exploration of a special topic in American Literature. Topics change each time the course is offered; sample topics include such subjects as American Sea Literature, the Nineteenth-Century Domestic Novel, the American Dream and its Discontents, and Labor and American Literature.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 371 Business Writing**

Designed to develop students' abilities to address various business audiences. Projects may include newsletters, brochures, flyers, fact sheets, application articles, press kits, press releases, proposals, documented reports, speeches, and writing for the Web, as well as oral presentations including visual aids. Students study the ethics and problems of writing within business organizations, current computer graphics and electronic drafting, editing, and reviewing techniques. Students who have received credit for 21.471 Business Writing will not receive credit for this course.

Prerequisites: ENGL 286 Professional Writing or permission of instructor.

**ENGL 372 Technical Writing**

Designed to develop students' abilities to produce representative technical documents. Projects may include instructions, proposals, technical reports, procedures, tutorials, usability tests, and support websites. Students are introduced to writing for technical and non-technical audiences, as well as to conventions of technical writing and the basics of editing appropriate to technical contexts. Students who have received credit for 21.472 Technical Writing will not receive credit for this course.

Prerequisite: Completion of Gen Ed. Domain 1 or permission of instructor.

**ENGL 373 Modern American Fiction**

An advanced study of major modern American writers such as Fitzgerald, Hemingway, Cather, West, Faulkner, Hurston, and Wright in the context of the historical and cultural developments of the first half of the twentieth century.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 374 Modern British and American Poetry**

A study of various modern poets, including Yeats, Eliot, Frost, Robinson, Housman, Hardy, and Hopkins. Attention is given to various theories about the nature and function of modern poetry, particularly where these theories differentiate modern poetry from the poetry of the past.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 375 Studies in British Literature through 1680**

An exploration of a special topic in British literature through 1680. Topics change each time the course is offered and may include such subjects as The Idea of the Garden in Chaucer, Spenser, and Milton; Elizabethan and Jacobean Revenge Tragedy; Life Writing in Early Modern England; The Literature of Travel and Exploration; and Reading Milton's *Paradise Lost*.

Prerequisites: ENGL 204 Literary Study or permission of instructor.

**ENGL 376 The Twentieth-Century Novel**

A study of major writers, ideas, and forms of the twentieth-century novel in Europe and America, with emphasis on the first half of the century. Close reading and discussion of representative works by such writers as Joyce, Hesse, Faulkner, Camus, and Bellow.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 377 Writing for Online and Social Media**

Designed to develop students' abilities to craft a professional online presence and use social media platforms effectively to distribute news stories and other professional writing. Students create blogs, participate in social media, engage in crowd-sourcing, study the best practices in this online area and focus on a single area of interest, such as journalism and politics, education, or business and professional writing.

Prerequisite: One (1) journalism or professional writing course; or permission of instructor.

**ENGL 378 Studies in World Literature through 1900**

An examination of a special topic in world literature through 1900. Particular works covered may be drawn from those written in the classical period through the end of the nineteenth century, in English or in translation. Topics change each time the course is offered and may include the classical literature of Greece and Rome, the Bible, and gender roles in the nineteenth-century European novel.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 381 Contemporary Irish Literature**

An advanced study of major Irish and Northern Irish writers in the context of historical and cultural developments from the post-war era to today. Close reading and discussion of representative works in various genres by such writers as Patrick Kavanagh, John Hewitt, Brian Friel, Seamus Heaney, Michael Longley, Roddy Doyle, Anne Enright, and Claire Keegan.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 382 Contemporary European Literature**

An examination of ideas, trends, and forms in recent literature from Europe, as well as recent works reflecting European consciousness from elsewhere in the world. The course begins with "classic" mid-twentieth century authors such as Beckett and Camus, and moves to writers who came to prominence more recently, such as Berger, Calvino, Coetzee, Duras, Handke, and Kundera. Note: Students will not receive credit for both ENGL 382 Contemporary European Literature and 21.379 Contemporary European and American Literature.

Prerequisites: ENGL 204 Literary Study or permission of instructor.

**ENGL 383 Contemporary American Fiction**

A study of American fiction since 1945, including writers such as Bellow, DeLillo, Doctorow, Ellison, Morrison, Nabokov, Pynchon, Roth, Tyler, Updike, and Walker. Emphasis is on postmodern narrative experiments and on representations of the self and American experience in the contemporary period. **Note:** Students will not receive credit for both ENGL 383 Contemporary American Fiction and 21.379 Contemporary European and American Literature.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 384 Contemporary American Poetry**

A study of contemporary American poetry from the mid-twentieth century to the present day. Students consider the work of poets from such key groups as the Confessionals, New York School, Beats, Black Arts, and slam poets. Students employ close reading in form and genre, explore biographical and historical contexts, and apply critical theory.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 386 Studies in British Literature after 1680**

An exploration of a special topic in British literature after 1680. Topics change each time the course is offered and may include subjects such as the British novel, British poetry from the Romantics to the present, British modernism, and diasporic London.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 390 Studies in Genre**

An advanced exploration of a single literary genre, such as the novel, non-fiction prose, poetry, or drama. A broad range of literary texts along with contextual documents and works of literary theory are examined.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 398 Studies in World Literature after 1900**

An examination of a special topic in world literature after 1900. Particular works covered may include those from the twentieth and twenty-first centuries, in English or in translation. Topics change each time the course is offered and may include the twentieth-century European novel, Literature and Islam, literature from the Indian subcontinent, and contemporary African literature.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 399 Current Trends in Children's Literature**

A theoretically informed study of current books for children and young adults, with particular emphasis on literary developments, publishing and marketing trends, and recent academic debates. Students will consider the social, technological, and professional contexts in which children's books are created, evaluated, and marketed. Note: This course does not satisfy the requirement of a 300-level literature course for the English major.

Prerequisite: Completion of one 200-level children's literature course or permission of instructor.

**ENGL 401 The English Language**

A study of the ancestry of English, of the processes and results of change in sound, form, and meaning. The classification of languages, social and regional dialects, theories of language acquisition, and other topics are examined to give the student a general understanding of modern developments in linguistics. **Note:** *This course is recommended for students planning graduate study in English.*

**ENGL 407 Chaucer**

A study of *The Canterbury Tales*, *Troilus and Criseyde*, and other shorter poems in relation to Chaucer's world and time, his development as an artist, and the lasting value of the works. After an introduction to Chaucer's language, students read his works in Middle English.

Prerequisite: ENGL 204 Literary Study or permission of instructor.

**ENGL 410 Seminar in Creative Writing**

An advanced writing workshop, in which students will be encouraged to follow their own writing interests, particularly in long subjects. Reading and discussion of manuscripts.

Prerequisite: Permission of the instructor.

**ENGL 411 Seminar in Prose Writing**

An advanced writing workshop for students who already have had some experience in writing nonfiction, and who now wish to complete extended projects or work on new material. The course explores various types of creative nonfiction: biography and memoir, and writing about travel, food, nature, and society. Classes are devoted to discussion of student work and to some discussion of notable nonfiction.

Prerequisite: ENGL 284 Creative Nonfiction or permission of instructor.

**ENGL 422 Seminar in Literature**

The capstone experience for the English major. Seminar instructors choose topics and primary texts connected by period, genre, theme, or author. Drawing on skills gained throughout the major, students develop historical and cultural contexts for the texts; apply a variety of critical theories, approaches, and methodologies; give oral reports; and write a substantial, theoretically informed research essay on a subject related to the seminar's topic.

Prerequisites: English major of senior standing with eight course credits in English, including ENGL 204 Literary Study and two literature courses at the 300 level. Second-semester juniors may only take the course with permission of the instructor and the Chair of the English Department.

**ENGL 481 Editorial Workshop in Journalism**

An intensive course in news, feature and editorial writing, as well as copy editing and newspaper management. Students gain hands-on experience working on *The Gatepost*. This course does not fulfill requirements for the English major.

Prerequisites: ENGL 225 Introduction to Journalism and either ENGL 331 News Writing or ENGL 335 Feature Writing, and a GPA of 3.00 in previous journalism courses; or permission of the instructor.

**ENGL 490 Independent Study in English**

An independent study supervised by a member of the English Department and offered to juniors and seniors. The independent study may, but need not, be done as an honors project under the jurisdiction of the Honors Committee. It counts as one course in the student's program and may not substitute for the Seminar in Literature.

**ENGL 495 Internship in English**

A supervised practical experience in an approved professional setting requiring writing. A substantial portfolio of written and edited material and a final report on the experience are required. The internship is open only to students majoring in English with a 3.00 GPA in the major, OR to students minoring in professional writing, creative writing, writing, or journalism with an average GPA of at least 3.00 in their writing courses. The internship does not fulfill a requirement for the English major. Arrangements must be made during the semester before the beginning of the internship and approved by the Chair of the English Department.

Prerequisite: Junior status and at least two (2) writing courses (*see approved list*), one of which must be a professional writing or journalism course; or permission of the Internship Coordinator.

**ENGL 496 Internship in Journalism**

A supervised field experience in an approved professional setting such as a newspaper or magazine or an online site. A substantial portfolio of published articles and a final report on the experience are required. The internship is open only to students majoring in English with a concentration in journalism and a 3.00 GPA in the major OR to students minoring in journalism with an average GPA of at least 3.00 in their journalism courses. The internship does not fulfill a requirement for the English major. Arrangements must be made during the semester before the beginning of the internship and approved by the Chair of the English Department.

Prerequisites: Junior status and ENGL 225 Introduction to Journalism, and two (2) of the following: ENGL 331 News Writing, ENGL 335 Feature Writing, ENGL 377 Writing for Online and Social Media, ENGL 481 Editorial Workshop in Journalism.



# Fashion Design and Retailing

## Chair: Pamela Sebor-Cable

Associate Professors: Virginia Noon, Pamela Sebor-Cable\*\*

Assistant Professors: Seunghye Cho, Md. Imranul Islam, Hae Won Ju,  
Priscilla Remis, Ruirui Zhang

\*Sabbatical: Fall 2016

\*\*Sabbatical: Spring 2017

## Mission

The mission of the Fashion Design and Retailing department is to prepare students as ethical and responsible leaders in the fashion design and retailing industry.

## Vision

To empower graduates to excel in a variety of careers such as design, product development, buying, retail management, and fashion promotion.

## Learning Goals

The Fashion Design and Retailing Major has two concentrations: Apparel Design (UFDA) and Merchandising (UFDM). The first four learning goals apply to both concentrations; additional learning goals relate to each specific concentration.

Fashion Design and Retailing Students enrolled in the Apparel Design Concentration (UFDA) will:

1. Apply the principles of design, motives of dress, business cycles, and the soft goods chain to the overall fashion industry.
2. Investigate and evaluate the interrelationship of textile products, apparel production methods, and product life cycle.
3. Research the major factors that affect the design, purchase, and trade of apparel and textiles to create a well written research project.
4. Analyze the apparel design and retailing industry in the world marketplace.
5. Identify, describe, demonstrate and evaluate apparel construction and production methods.
6. Create and develop original apparel designs from initial concept to finished garment utilizing flat pattern, draping, tailoring, and couture techniques.
7. Draw fashion illustrations and flat sketches, by hand and on computerized systems to create an illustrated collection of designs and garment specification/product development materials.
8. Develop and present orally and visually a professional quality portfolio of original design ideas and concept boards to demonstrate product knowledge and terminology used in the apparel industry.

Fashion Design and Retailing students enrolled in the Merchandising Concentration (UFDM) will:

1. Apply the principles of design, motives of dress, business cycles, and the soft goods chain to the overall fashion industry.
2. Investigate and evaluate the interrelationship of textile products, apparel production methods, and product life cycle.
3. Research the major factors that affect the design, purchase, and trade of apparel and textiles to create a well written research project.
4. Analyze the apparel design and retailing industry in the world marketplace.

5. Identify and apply the principles of retailing to create a complete business plan including an assortment of merchandise to meet the needs of a specific target market.
6. Investigate the major strategies of the retailing industry in regards to location, sales, merchandise management, and promotion.
7. Integrate current technologies as they relate to business practices in fashion industries
8. Present information in an organized and effective manner incorporating written, oral, and visual components.

### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-C (Global Competency, Ethical Reasoning, and/or Human Diversity) is satisfied through the completion of the Fashion Design and Retailing major.

### **Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### **Requirements for Major:**

#### **Major core requirements (8):**

FASH	140	Principles of Apparel Construction
FASH	141	Fashion: Designer to Consumer
FASH	153	Consumer Textiles
FASH	223	History of Costume <b>or</b>
	FASH 347	History of Textiles
FASH	245	Research Methods for the Fashion Industry
FASH	326	Fashion Merchandising: Theory and Industry Analysis
FASH	362	World Market: Textiles to Retailing
MATH	117	Introduction to Statistics

### **Fashion Design and Retailing students must choose one of the following concentrations:**

#### **CONCENTRATIONS**

##### **APPAREL DESIGN (UFDA)**

##### **Concentration Core Requirements (11):**

ARTS	222	Color and Design
FASH	200	Fashion Sketching and Design <b>OR</b>
	ARTS 200	Drawing Fundamentals (GenEd Domain I-A)
FASH	243	Advanced Apparel Construction
FASH	342	Flat Pattern Design
FASH	352	Draping
FASH	355	Fabric Structure and Design
FASH	357	Fashion Illustration

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FASH	447	Apparel Industry Methods
FASH	448	Tailoring and Couture Techniques
FASH	449	Functional Clothing Design
FASH	487	Apparel Design Portfolio

*Student may elect to take additional Department offerings available for Open/Free electives towards overall degree requirements:*

FASH	250	Special Topics in Fashion Design and Retailing
FASH	241	Omni-channel Fashion Retailing
FASH	253	Cultural Dress
FASH	290	Study Tour: Fashion Design and Retailing
FASH	310	Retail Buying and Analysis I
FASH	346	Retailing and Consumer Behavior
FASH	354	Advanced Textiles
FASH	386	Apparel Product Development
FASH	390	Special Topics in Fashion Design & Retailing
FASH	410	Retail Buying and Analysis II
FASH	452	Fashion Promotion
FASH	455	Case Studies in Fashion
FASH	464	Fashion Merchandising: Planning, Policies, and Implementation
FASH	490	Independent Study in Fashion Design and Retailing
FASH	495	Internship in Fashion Design (1 to 2 course-credits)

## **MERCHANDISING (UFDM)**

### **Concentration Core Requirements (8):**

FASH	003	Field Study in Merchandising (non-credit)
FASH	241	Omni-channel Fashion Retailing
FASH	310	Retail Buying and Analysis I
FASH	346	Retailing and Consumer Behavior
FASH	410	Retail Buying and Analysis II
FASH	452	Fashion Promotion
FASH	464	Fashion Merchandising: Planning, Policies, and Implementation
FASH	496	Internship in Merchandising (2 course-credits)

**Required Concentration Electives (2) - at least two (2) additional courses from the list below, only one of which may be at the 200-level:**

FASH	200	Fashion Sketching and Design
FASH	243	Advanced Apparel Construction
FASH	250	Special Topics in Fashion Design and Retailing
FASH	253	Cultural Dress
FASH	290	Study Tour: Fashion Design and Retailing

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FASH	342	Flat Pattern Design
FASH	352	Draping
FASH	354	Advanced Textiles
FASH	355	Fabric Structure and Design
FASH	386	Apparel Product Development
FASH	390	Special Topics in Fashion Design and Retailing
FASH	447	Apparel Industry Methods
FASH	448	Tailoring and Couture Techniques
FASH	449	Functional Clothing Design
FASH	455	Case Studies in Fashion
FASH	490	Independent Study in Fashion Design and Retailing

*A minor is recommended with this concentration. Students are encouraged to meet with their advisor to select a minor (for example: Art, Business Administration, Communication Arts, Economics, Geography, Journalism, Psychology, or Sociology), in accordance with their career goals.*

## **MINORS**

### **MINOR IN APPAREL DESIGN (5 COURSES)**

#### **Required courses:**

FASH	140	Principles of Apparel Construction
FASH	153	Consumer Textiles

#### **Choose three (3) courses from the following:**

FASH	200	Fashion Sketching and Design
FASH	223	History of Costume <b>OR</b>
	FASH 253	Cultural Dress
FASH	243	Advanced Apparel Construction
FASH	342	Flat Pattern Design
FASH	352	Draping
FASH	355	Fabric Structure and Design
FASH	447	Apparel Industry Methods
FASH	449	Functional Clothing Design

### **MINOR IN MUSEUM STUDIES (7 COURSES)**

This interdepartmental minor requires that students take a minimum of five (5) courses outside of their major department. Students are strongly encouraged to complete a museum internship to complement the minor. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Museum Studies minor will be awarded without compliance with the above format.

*The minor requires five (5) to seven (7) courses as follows:*

#### **One (1) Required course:**

**Choose two (2) of the following:**

- ANTH 172 Interpreting the Past: Archaeological Perspectives  
(Gen.Ed. Domain III-A)
- FASH 253 Cultural Dress (Gen.Ed. Domain III-C)
- FASH 278 History of Furniture
- FASH 347 History of Textiles
- FASH 223 History of Costume (Gen.Ed. Domain III-A)

**Choose two (2) of the following:**

- ARTH 200 Art and Social Values (Gen.Ed. Domain III-C)
- ARTH 272 History of Art II (Gen.Ed. Domain III-A)
- ARTH 282 American Art (Gen.Ed. Domain I-B)
- INTD 381 Museum Seminar or any two (2) courses  
approved by the Art Department Chair

**Choose two (2) of the following:**

- HIST 154 Europe and the World since circa 1450  
(Gen.Ed. Domain III-A)

One (1) 300-level history course approved by the department chair

**FASHION DESIGN AND RETAILING COURSES APPROPRIATE FOR  
GENERAL EDUCATION (GEN. ED.)**

<b>Course</b>	<b>Domain</b>
FASH 223 History of Costume	III-A
FASH 253 Cultural Dress	III-C

**FASHION DESIGN AND RETAILING COURSES:**

**FASH 003 Field Study in Merchandising (No course credit)**

A non-credit 200 hour field experience for all students preparing for a career in merchandising. The students observe and participate in a wide spectrum of experiences in a retail setting including contact with customers, retail sales and stocking merchandise. Must be completed by the beginning of the junior year. May be waived with approval of the department chair in conjunction with the department chair. Field experience at a two-year college may be used to fulfill the requirement with the approval of the department chair.

**FASH 140 Principles of Apparel Construction**

A laboratory course in which students use commercial patterns to produce completed garments. Emphasis is on materials selection, construction techniques, and quality standards. A notebook of basic assembly techniques is produced. Students with extensive construction experience may petition for exemption from this course.

**FASH 141 Fashion: Designer to Consumer**

An introductory study of the psychological, sociological, and economic theories of the fashion industry. Elements and principles of design are related to clothing and home furnishings. The flow of the apparel and home furnishings industry is traced from design inspiration to retailer. Consumer issues and industry resources related to clothing and home furnishings are investigated.

**FASH 153 Consumer Textiles**

A study of the interrelationship of fibers, yarns, fabric structures, and finishes. Product suitability for end use, quality in relation to serviceability, and use and care problems are determined from fiber/fabric information. Textile identification, analysis, and testing procedures are explored.

### **FASH 200 Fashion Sketching and Design**

An introduction to the visual communication of apparel design. Students broaden their fashion knowledge of garment terminology and develop creative solutions to design problems. Students practice using croquis templates to express clothing shape, construction, and details in the context of various presentation formats. As a merchandiser through market research, product development, fabric sourcing and technical packages or as a designer through inspirational research, line development, fabrication, and theme boards each student discover their own sense of style and way of presenting their ideas.

### **FASH 223 History of Costume (Gen. Ed. Domain III-A)**

The study of costume from ancient Mesopotamia to the present. Costume is viewed as an integrated and characteristic expression of its period. The influence of social, political, technological, and economic conditions on costume is investigated through visual, audio, and written expression. This course examines fabrication, silhouette, color, and the aesthetics of people's costume through works of art and garments throughout history.

**Note:** Credit is not given for both this course and 34.336 History of Costume.

### **FASH 241 Omni-channel Fashion Retailing**

An introduction to a broad range of retailing formats and a study of emerging technology-driven trends in fashion retailing and fashion merchandising. Consumers expect seamless experiences across all touch points and devices whether in-store, at home, at work, or on the road. Emphasis is placed on analysis and application of traditional and digital technologies as they influence sales, management, and communication. Topics such as introduction to retailing formats, distribution channels, social marketing, digital retail technologies, big data, e-commerce, and mobile commerce are discussed.

Prerequisites: FASH 141 Fashion: Designer to Consumer.

### **FASH 243 Advanced Apparel Construction**

A laboratory course that focuses on advanced apparel construction methods. Emphasis is on construction and quality standards for complex apparel items such as jackets, pants, linings, pockets. Completed garments are produced using commercial patterns. A notebook with examples of advanced techniques is developed.

Prerequisites: FASH 140 Principles of Apparel Construction.

### **FASH 245 Research Methods for the Fashion Industry**

An analysis of concepts, constructs, models, and theories related to the fashion industry. Demographics/psychographics are related to stages of the family life cycle. The theory, practice and application of the research process in the textile, apparel, and retail industry are analyzed. Students compare research methods used in the fashion industry including peer reviewed literature and participate in a research project. Observations and computer data analysis are utilized.

Prerequisites: FASH 141 Fashion: Designer to Consumer.

### **FASH 250 Special Topics in Fashion Design & Retailing**

An exploration into an identified topic in the Fashion Design, Retail or Textile field. Topics vary with instructor and reflect current trends or major themes in the area of design, retailing, or textiles. Depending on the topic, students research and write a major paper and/or develop a collection of apparel designs and illustrations. NOTE: This course may be taken more than once for credit, provided a different topic is being examined.

Prerequisite(s): Vary with topic.

### **FASH 253 Cultural Dress (Gen. Ed. Domain III-C)**

An investigation of the dress of selected cultures. Textiles, garment shapes, and design adaptations are examined in relation to technology, geographic environment, social structure, political systems, and economic conditions.

### **FASH 290 Study Tour: Fashion Design and Merchandising**

A fashion design and merchandising course taught through on-site exposure to international or domestic fashion and retailing methods in addition to traditional methods of instruction, including pre and post-trip class meetings. Students learn from direct contact with fashion and retailing in a real world context. The topics/ locations may vary from year to year and are announced in the course schedule bulletin. This course may be repeated for credit if focused on different topics/locations.

### **FASH 310 Retail Buying and Analysis I**

A study of concepts, principles and techniques used by retail buyers to plan and buy merchandise. Topics include pricing, terms of negotiation, mark down/up, average stock, analysis of inventory, stock to sales ratio, and open to buy.

Prerequisites: FASH 245 Research Methods for the Fashion Industry and MATH 117 Introduction to Statistics.

**FASH 326 Fashion Merchandising: Theory and Industry Distribution**

A study of fashion theories related to consumer demand for apparel and home furnishings. Issues in retail organization structure, merchandise policy, merchandise resources, sourcing, and buying office functions for each type of store are analyzed. Topics include vendor relations, business practices, role of the buyer, negotiating terms of an order, and evaluation of sale are reviewed. Students calculate and analyze terms of ordering and financing. Note: Student cannot receive credit for both this course and 34.366 Fashion Merchandising: Theory and Distribution.

Prerequisite: FASH 245 Research Methods for the Fashion Industry.

**FASH 342 Flat Pattern Design**

The study of the theory and application of the flat pattern method used to create patterns for the design of apparel. The drafted master pattern is used to develop a variety of bodices, skirts, sleeves, collars, and shirts. The student applies developed skills in flat patternmaking to create original garments which emphasize design principles, flat sketching, prototype development, fit, and assembly techniques.

Prerequisites: FASH 243 Advanced Apparel Construction.

**FASH 346 Retailing and Consumer Behavior**

A study of consumer behavior and the effects on the retail environment. The influence of psychology, sociology, and consumer behavior on individual and group needs related to purchasing behavior is discussed. Topics include clothing and the life cycle, buying behavior, compulsive shopping behavior, collective selection, motives of dress, body image, nonverbal communication and dress, self concept, and clothing for special needs.

Prerequisites: FASH 245 Research Methods for the Fashion Industry.

**FASH 347 History of Textiles**

The study of the evolution of fibers, fabric structures, design motifs, color processes, and finishing techniques. Textiles are studied in relation to culture, conquest, trade routes, and the Industrial Revolution. Present day fabrics are analyzed based upon their historical development.

Prerequisite: FASH 153 Consumer Textiles.

**FASH 352 Draping**

A study of the theory and application of principles of apparel design on three dimensional body forms. Basic silhouettes and garment style features are draped and fitted in muslin. Students use the principles of draping to create original apparel designs in fashion fabric for specified target markets.

Prerequisite: FASH 243 Advanced Apparel Construction.

**FASH 354 Advanced Textiles**

The in-depth study of textile products, specialty fibers, and current development in the textile industry. The relationship of textile products to legislation, human and industrial needs, and world political development is explored. Textile testing standards, specifications, and methods are studied and applied in a research project.

Prerequisite: FASH 153 Consumer Textiles.

**FASH 355 Fabric Structure and Design**

An introduction to basic fabric construction and embellishment techniques. Students study and experiment with weaving (tapestry and four-harness), knotting, knitting, embroidery, quilting, piecework, and coloration. The elements and principles of design are incorporated.

Prerequisites: FASH 140 Principles of Apparel Construction, FASH 141 Fashion: Designer to Consumer, and FASH 153 Consumer Textiles.

**FASH 357 Fashion Illustration**

A study of the methods of illustration for the Fashion Designer. Basic anatomy and analysis of the idealized fashion female and male figures will be emphasized through demonstrations and exercises. Students will render designs using a variety of mediums including marker, pencil, watercolor, and gouache to represent apparel details and textiles while understanding the dialog between clothing and the posed figure. Students develop their individual style and build portfolio skills. **Note:** Students may not receive credit for both this course and ARTS 357 Fashion Illustration.

Prerequisite: FASH 200 Fashion Sketching and Design or ARTS 200 Drawing Fundamentals.

**FASH 362 World Market: Textiles to Retailing**

A study of U.S. and global trade in apparel and home furnishings. Trade principles, history, legislation, and importing/exporting are stressed. Global statistics and trends in relation to the chain of the apparel and home furnishings industries are analyzed. Topics include multinational corporations, mergers, world trade, and market analysis for fashion-related companies including jewelry, cosmetics, footwear, and fur, and children's wear. Note: Student cannot receive credit for both this course and 34.344 World Market: Textiles to Retailing.

Prerequisite: FASH 326 Fashion Merchandising: Theory and Industry Distribution and MATH 117 Introduction to Statistics.

**FASH 386 Apparel Product Development**

An in-depth study of the steps and the processes involved in apparel product development from style adoption through delivery to the retailer. Students work in cross-functional teams to gain a comprehensive understanding of the fundamentals of technical design and spec pack development. Emphasis is placed on practical application in the process of size spec development, fitting and communication with vendors, grading of size specifications, costing and cost engineering of garments, construction details, wash care and labeling requirements, textile performance standards of materials and trims, and packing and shipping to customer.

Prerequisite: FASH 362 World Market: Textiles to Retailing.

**FASH 390 Special Topics in Fashion Design & Retailing**

An exploration into an identified topic in the Fashion Design, Retail or Textile field. Topics vary with instructor and reflect current trends or major themes in the area of design, retailing, or textiles. Depending on the topic, students research and write a major paper and/or develop a collection of apparel designs and illustrations.

Prerequisite(s): Vary with topic.

**FASH 410 Retail Buying and Analysis II**

An in-depth study of the role of retail buyers, buying plan development, and assortment planning and control. Emphasis is placed on buying practices and techniques, inventory allocation and distribution, sales data analysis, and product line development.

Prerequisite: FASH 310 Retail Buying and Analysis I.

**FASH 447 Apparel Industry Methods**

The study of professional digital and computer illustration techniques used in the design and product development of apparel. Course work includes: interpreting and executing digital programs such as Adobe® Illustrator menus, tools, panels, etc. to draw garment flat sketches and fashion illustrations; using digital tools to draw accurate flat sketches for garment specification; and the application and synthesis of computerized illustration techniques to design a line of apparel for a variety of categories and target markets.

Prerequisite: FASH 200 Fashion Sketching and Design or FASH 357 Fashion Illustration.

**FASH 448 Tailoring and Couture Techniques**

A laboratory course which emphasizes the comparison of Bespoke Tailoring and Haute Couture to mass production methods focusing on high level workmanship, originality of design, and fit. Processes specific to womenswear and menswear are implemented through fabric selection, proper cutting techniques, inner construction methods, and fine hand finishing skills.

Prerequisites: FASH 243 Advanced Apparel Construction and FASH 342 Flat Pattern Design; or permission of instructor.

**FASH 449 Functional Clothing Design**

The advanced study and analysis of apparel design with special attention to design lines and materials for specific end use. Students research, design, develop patterns, and construct original garments in categories such as: active sportswear, swimwear, careerwear, protective apparel, childrenswear, and clothing for the handicapped.

Prerequisite: FASH 342 Flat Pattern Design.

**FASH 452 Fashion Promotion**

A study of promotional activities related to fashion merchandising. Theory and application of visual display, special events, publicity, and advertising are emphasized. Factors such as organizational philosophy, store image, and budgeting are considered.

Prerequisite: FASH 326 Fashion Merchandising: Theory and Industry Distribution.



### **FASH 455 Case Studies in Fashion**

A case methods course using real situations from existing textile, apparel, home furnishings, and retail companies. Decision making using facts and concepts exhibited in each case is emphasized. Underscored are factors such as executive responsibility, ethics, consequences, and pressures in the work place. Field trips are an integral part of this course.

Prerequisite: FASH 326 Fashion Merchandising: Theory and Industry Distribution.

### **FASH 464 Fashion Merchandising: Planning, Policies, and Implementation**

An analysis of industry standards in a business plan for a model retail business. Concepts included are financial planning, store location, organizational structure, merchandise assortment, and financial structure of the apparel and home furnishings industries. The role of the buyers and managers in policy making is analyzed. Open-to-buy and pricing are calculated and evaluated. Procedures and techniques practiced in assortment, movement of goods, customer service, security, and store policies are reviewed.

Prerequisite: FASH 003 Field Study in Merchandising and FASH 362 World Market: Textiles to Retailing or permission of instructor.

### **FASH 487 Apparel Design Portfolio**

A capstone experience to organize and present design work created in the Fashion Design and Retailing program and to produce a portfolio required to obtain a professional position in the apparel industry. Students develop a portfolio to demonstrate knowledge and skills in: a variety of garment categories; hand and computer illustration; flat sketching techniques; and original full scale garments. Ideas are assembled in an aesthetic and professional format by integrating the components of design, fabric, and end use. A portfolio presentation is required.

Prerequisites: 34.447 Apparel Industry Methods, Senior standing.

### **FASH 490 Independent Study in Fashion Design and Retailing**

An in-depth investigation in a specific topic relating to clothing, textiles, home furnishings, or design. The student must submit a written proposal for the creative or written project to the faculty member who has agreed to be the supervising instructor. Oral presentations and a final report required.

Prerequisite: Junior or senior standing and permission of the instructor.

### **FASH 495 Internship in Fashion Design (1 to 2 course-credits)**

A supervised work experience in a professional area of fashion design, product development or apparel and textile production. The student must work a minimum of 140 hours for each course credit. Online assignments provide guidance for professional development. A faculty supervisor and a representative from the business establishment evaluate student performance. NOTE: Students must apply by October 15th for spring term and February 15th for summer or fall term.

Prerequisites: Junior Status; FASH 342 Flat Pattern, FASH 352 Draping, and a minimum 2.50 GPA in all Fashion Design and Retailing courses. Department permission required.

### **FASH 496 Internship in Merchandising (2 course-credits)**

A supervised full-time management level work experience in a retail-related establishment. During this experience, the student must work a minimum of 280 hours. Online assignments provide guidance for professional development. A faculty supervisor and a representative from the business establishment evaluate student performance. *Note: Students must apply by October 15th for spring term and February 15th for summer and fall terms.*

Prerequisites: Senior Status. FASH 003 Field Study in Merchandising, FASH 464 Fashion Merchandising: Planning, Policies and Implementation, MATH 117 Introduction to Statistics, and a minimum 2.50 GPA in all Fashion Design and Retailing courses. Department permission required.

# Food and Nutrition

## Chair: Janet Schwartz

Professors: Susan Massad, Suzanne Neubauer, Janet Schwartz

Associate Professors: Michael Crosier

Assistant Professors: Andrea Gorman, Ann Johnson,  
Jerusha Nelson-Peterman, Brian Souza

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## Food and Nutrition

Successful completion of college and departmental requirements leads to the Bachelor of Science with a major in Food and Nutrition. The programs prepare the student for positions in clinical nutrition, foodservice management, community nutrition, health promotion, and other food and nutrition specializations.

### The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Sciences) and laboratory requirement are satisfied through the completion of the major requirements.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## MAJOR IN FOOD AND NUTRITION

### Food and Nutrition Mission

All students enter the Food and Nutrition major with a General Studies pre-concentration (UFNG) or Nutrition and Wellness Concentration (UFNW). When students are enrolled in or have completed CHEM 301 Biochemistry I, they must apply to either the Nutrition and Dietetics or Coordinated Program in Dietetics concentration or choose the Nutrition and Wellness Concentration.

- The Coordinated Program in Dietetics Concentration (UFNP) integrates an academic and supervised practice curriculum to prepare students to be entry-level dietitians. (application required)
- The Nutrition and Dietetics Concentration (UFND) (Didactic Program in Dietetics) offers an academic curriculum to prepare students to be accepted in a Dietetic Internship to become a Registered Dietitian. (application required)
- The Nutrition and Wellness Concentration (UFNW) offers an academic curriculum to prepare students to pursue a career in a food, nutrition, wellness or related field.

### Requirements for Major:

#### Major core requirements (8):

NUTR	205	Nutrition Science and Applications
NUTR	262	Food, Culture, and Society
NUTR	364	Experimental Study of Food
NUTR	381	Medical Nutrition Therapy I
NUTR	384	Foodservice Systems
NUTR	478	Community Nutrition
NUTR	482	Management of Food and Nutrition Services

SOCI 101 Introduction to Sociology **or**

ANTH 161 Cultural Anthropology

### **GENERAL STUDIES PRE-CONCENTRATION (UFNG)**

This concentration begins preparation to become a registered dietitian. All students are placed in this concentration at time of admission unless they have chosen the Nutrition and Wellness Concentration.

#### **Pre-Concentration Requirements (5 courses):**

BIOL 130	Principles of Biology (Gen.Ed. Domain II-B & Lab)
CHEM 107	Principles of Chemistry (Gen.Ed. Domain II-B & Lab)
CHEM 108	Principles of Chemistry and Quantitative Analysis
CHEM 207	Organic Chemistry I
CHEM 301	Biochemistry I

## **CONCENTRATIONS**

### **CONCENTRATION IN NUTRITION AND DIETETICS (UFND)**

Students are prepared to meet the requirements of the Didactic Program in Dietetics (DPD). Students in this concentration intend to apply for admission to an Accreditation Council for Education in Nutrition and Dietetics (ACEND) accredited supervised practice program upon graduation. Twenty-four (24) students are accepted to this concentration each year. Admission to the DPD is competitive. Applications are accepted only in the spring semester; applicants must be enrolled in or have completed CHEM 301 Biochemistry I. Minimally, second semester sophomore standing is required, but applications are accepted from juniors and seniors. Transfer students must be matriculated at the University before applying for the concentration.

Students are eligible to take the Registration Examination for Dietetic Technicians upon graduation.

Students apply to this concentration while they are enrolled in or after completing CHEM 301 Biochemistry I. In addition, transfer students must complete one (1) semester at the University before being accepted into this concentration.

Students who are not accepted into the Nutrition and Dietetics Concentration or the Coordinated Program in Dietetics Concentration must choose the Nutrition and Wellness Concentration or another major in the University.

Minimal requirements for departmental admission into the Nutrition and Dietetics Concentration include a GPA of 2.70, a GPA of 2.50 in science courses, and a minimum grade of C- (1.70) in any Biology, Chemistry and Food and Nutrition courses. An application form can be found on the departmental website [www.framingham.edu/nutrition](http://www.framingham.edu/nutrition).

During the fall semester of their senior year, students work with the DPD Director to apply to a post-baccalaureate ACEND-accredited supervised practice program by registering for NUTR 005 Preparation for Academy Dietetic Internship (no course credit).

#### **Concentration Requirements (6 courses):**

*These courses are in addition to the major core requirements (8 courses) and pre-concentration requirements (5 courses).*

BIOL 235	Principles of Human Physiology
BIOL 307	Microbiology
NUTR 005	Preparation for Academy Dietetic Internship (non-credit)
NUTR 374	Human Nutrition Science
NUTR 479	Computer Applications in Nutrition
NUTR 483	Medical Nutrition Therapy II

NOTE: Students completing this concentration have met the academic requirements to sit for the Massachusetts licensure exam to be a licensed nutritionist dietitian (LDN). See <http://www.mass.gov/ocabr/licensee/dpl-boards/mu/>.

### CONCENTRATION IN COORDINATED PROGRAM IN DIETETICS (UFNP)

The Coordinated Program in Dietetics (CPD) includes both the academic requirements and the supervised practice requirements which qualify students to take the Registration Examination for Dietitians upon graduation. Admission to the CPD is competitive. Applications are accepted only in the spring semester; applicants must be enrolled in or have completed CHEM 301 Biochemistry I. Minimally, second semester sophomore standing is required, but applications are accepted from juniors and seniors. Transfer students must be matriculated at the University before applying for the concentration. An application form can be found on the departmental website [www.framingham.edu/nutrition](http://www.framingham.edu/nutrition).

Twenty-four (24) undergraduate and graduate students are admitted to this program each year.

One (1) course must be taken during summer session following sophomore or junior year to meet graduation requirements. Options for summer session include: General Education courses not previously taken or BIOL 307 Microbiology. Intersession options for General Education courses are also available in sophomore or junior year. Students are required to take NUTR 427 Nutrition in the School Environment (0.5 course-credit), an online course, during the summer proceeding the last year of the program. Continuing Education course tuition/fees apply.

#### Concentration Requirements (11 courses):

*These courses are in addition to the major core requirements (8 courses) and pre-concentration requirements (5 courses).*

BIOL 235	Principles of Human Physiology
BIOL 307	Microbiology
NUTR 002	Orientation to Dietetics (non-credit)
NUTR 374	Human Nutrition Science
NUTR 427	Nutrition in the School Environment (0.5 course-credit)
NUTR 483	Medical Nutrition Therapy II
NUTR 485	Practicum in Foodservice Systems
NUTR 486	Experiences in Community Nutrition
NUTR 487	School Nutrition Practicum (0.5 course-credit)
NUTR 488	Seminar in Clinical Nutrition
NUTR 489	Clinical Experience in Dietetics (2 course-credits)

### CONCENTRATION IN NUTRITION AND WELLNESS (UFNW)

This concentration is for students who anticipate careers in wellness, and food and nutrition-related fields. Students take basic science courses in chemistry and biology in addition to a core of food and nutrition courses that provide a general background in nutrition and health, community nutrition, and foodservice management. Students are encouraged to choose a minor that provides an area of specialization. This concentration does not meet the requirements to pursue a career as a Registered Dietitian. Students may choose this concentration at any time.

#### Concentration requirements (12 courses):

*These courses are in addition to the major core requirements (8 courses).*

BIOL 142	Introduction to Human Biology <b>or</b>
BIOL 235	Principles of Human Physiology
CHEM 103	Introductory Chemistry <b>or</b>

CHEM 201	Introductory Organic Chemistry and Biochemistry
CONS 105	Personal and Community Health
CONS 310	Drug Addiction
ENGL 286	Professional Writing
FINS 100	Principles of Financial Literacy
NUTR 271	Nutrition for Sports and Exercise
NUTR 333	Nutrition and Chronic Disease
NUTR 390	Special Topics in Nutrition
NUTR 479	Computer Applications in Nutrition
NUTR 495	Internship in Food and Nutrition

*A minor is strongly recommended. Students are encouraged to meet with their advisor to select a minor in accordance with their career goals. Recommended minors include: biology, business, information technology, journalism, psychology, sociology, Spanish, communication arts, or professional writing.*

### MINOR IN NUTRITION (6 COURSES)

Students complete the following six (6) required courses:

CHEM 103	Introductory Chemistry (Gen.Ed. Domain II-B & Lab) <b>or</b> CHEM 107 Principles of Chemistry (Gen.Ed. Domain II-B & Lab)
CHEM 201	Introductory Organic Chemistry and Biochemistry
NUTR 205	Nutrition Science and Applications
NUTR 262	Food, Culture, and Society
NUTR 333	Nutrition and Chronic Disease
NUTR 364	Experimental Study of Food

### FOOD AND NUTRITION COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Course	Domain
NUTR 205 Nutrition Science and Applications	II-B

### CONSUMER SCIENCE COURSE DESCRIPTIONS

#### CONS 105 Personal and Community Health

Designed to include discussion and debates on health issues that affect us throughout the life cycle. The course integrates physical, mental, social, emotional, intellectual, and spiritual health. Emphasis is placed on health promotion and disease prevention and includes examination and assessment of community health services.

#### CONS 310 Drug Addiction

A multidisciplinary study of the relationships of drug use, misuse, and abuse to biological and psychological health. Students explore the types of compounds that can influence brain activity, behavior and physiology. Topics include the history of drug abuse in American society, the nature of tolerance and dependence, drug regulation and the law, the categories of drugs (stimulants, depressants, hallucinogens, marijuana and hashish, anabolic steroids, inhalants, narcotics/opiates) and their effects on the body systems. This course is appropriate for health educators who cover drug abuse in educational settings.

*Prerequisite: An introductory biology course with lab or permission of the instructor.*

## FOOD AND NUTRITION COURSE DESCRIPTIONS

### **NUTR 002 Orientation to Dietetics (No course credit)**

A non-credit (200 hour minimum work experience in dietetics approved by a Food and Nutrition faculty member. A written evaluation of the student's performance is required from the student's employer. This work experience is recommended for all Food and Nutrition majors and is required prior to admission to the Coordinated Program in Dietetics.

### **NUTR 005 Preparation for Academy Dietetic Internship (No course credit)**

A non-credit requirement for all food and nutrition majors in the concentration in nutrition and dietetics who plan to apply for a 1200-hour post-graduate dietetic internship accredited by the Academy of Nutrition and Dietetics. In preparation for application for a post-baccalaureate dietetic internship, students do in-depth research on the available internships, participate in a resume-writing workshop, develop interview skills, write a professional personal statement, obtain letters of reference, and meet with the Didactic Program in Dietetics Director. This course is open only to students in the nutrition and dietetics concentration of Food and Nutrition. Offered Fall semester only. Note: A completed accredited Academy dietetic internship is required for eligibility to take the national Registration Examination for Dietitians, which earns candidates the RD/RDN credential. Prerequisite: Senior status.

### **NUTR 205 Nutrition Science and Applications (Gen. Ed. Domain II-B)**

An integration of nutrition science with its application to diet and health. Emphasis is placed on nutrient and energy requirements for individuals throughout the life span. Topics include macro- and micronutrients; digestion, absorption, and metabolism; body composition and weight management; vegetarianism; sports nutrition; chronic disease; and environmental issues. Students conduct a computer analysis of their own diets.

Note: Students cannot receive credit for both NUTR 205 Nutrition Science and Applications and 34.120 Current Issues in Nutrition and Health or 34.171 Human Nutrition in the Life Cycle.

### **NUTR 262 Food, Culture, and Society**

A study of the sociocultural and economic factors that affect the ways individuals and groups manage food. The impacts of culture, income, gender, age, health concerns, and time management are examined. The food system is studied as it relates to consumers' needs. Food management skills are emphasized in laboratory experiences. Nutritional analyses are performed on the computer. Laboratory (3 hours). **Food and Nutrition Majors Only.** Prerequisite: NUTR 205 Nutrition Science and Applications.

### **NUTR 271 Nutrition for Sports and Exercise**

The study of the association between nutrition and exercise performance. Metabolism of carbohydrates, fats, proteins, vitamins, minerals and water and its effect on athletic training is stressed. Nutrition assessment of athletes, how to measure body composition, and the use of and controversy over ergogenic aids are explored in depth.

Prerequisites: NUTR 205 Nutrition Science and Applications, CHEM 103 General Chemistry or CHEM 107 Principles of Chemistry, BIOL 142 Introduction to Human Biology or BIOL 235 Principles of Human Physiology.

### **NUTR 275 Principles of Personal Training**

An introduction to the essential knowledge, skills, and abilities required to succeed in the field of personal fitness training. Topics include: client consultation and assessment of health and fitness parameters; principles of exercise programming and implementation strategies; exercise leadership; behavior change; fitness education; and legal, professional, business, and marketing issues. **Laboratory** (3 hours) time is dedicated to the practical application of course material such as: conducting health and fitness assessments; consultation strategies; exercise programming, technique and safety demonstrations; care and management of equipment; and developing professional presentation skills. Students are prepared for the American College of Sports Medicine (ACSM) Certified Personal Trainer exam; students must register and pay for the certification exam separately.

Prerequisites: BIOL 142 Introduction to Human Biology or BIOL 235 Principles of Human Physiology or BIOL 241 Human Anatomy and Physiology I; Sophomore standing.

### **NUTR 290 Study Tour: Food and Nutrition**

A food and nutrition course taught through on-site exposure to food systems and/or culinary practices. Traditional methods of teaching are also employed. Students gain direct experience of food and nutrition in geographic, cultural, political, educational, culinary and historical contexts. Students meet and prepare course materials prior to the tour. The topics and locations may vary from year to year and are announced in the course schedule. This course, in a different topic/location, may be repeated for credit. Additional course fees may apply.

**NUTR 333 Nutrition and Chronic Disease**

An exploration of the nutritional and physiological aspects of the major chronic diseases and conditions affecting individuals in the United States. Topics include obesity, heart disease, cancer, diabetes, and osteoporosis. Emphasis is placed on chronic disease in the aging population.

Prerequisites: Junior Status; NUTR 262 Food, Culture, and Society (may be taken concurrently).

**NUTR 364 Experimental Study of Food**

A study of the scientific basis for the selection, preparation and handling of food. Laboratory application includes principles underlying food preparation, experimentation in comparative food preparation, and an independent student laboratory research project.

Prerequisite: NUTR 262 Food, Culture, and Society and an organic chemistry course.

**NUTR 374 Human Nutrition Science**

A study of the interrelationships and respective functions of nutrients, and the integration of nutrition, biochemistry, and human physiology. Emphasis is placed on research design in classic and current nutrition studies with respect to nutrition and health.

Prerequisites: CHEM 301 Biochemistry I, BIOL 235 Principles of Human Physiology.

**NUTR 381 Medical Nutrition Therapy I**

An introduction to the application of nutrition care of individuals and groups in a variety of health care settings. Topics include nutrition assessment and care plans, medical terminology and documentation, interviewing and counseling skills, and educational theory and material development. Note: The Coordinated Program in Dietetics requires students to complete a concurrent clinical experience in cooperating health care facilities. A physical exam, a Criminal Offender Record Information (CORI) check, and liability insurance are required for the clinical experience.

Prerequisites: BIOL 142 Introduction to Human Biology or BIOL 235 Principles of Human Physiology; NUTR 262 Food, Culture, and Society.

**NUTR 384 Foodservice Systems**

A study of current trends and practices in the management of foodservice systems. Using a problem-based learning approach, the course includes the concepts of food safety, menu planning, procurement, quantity food production, delivery systems, and financial management. Topics are augmented by a laboratory experience in a foodservice facility. Liability insurance is required.

Prerequisite: NUTR 364 Experimental Study of Food or permission of instructor.

**NUTR 390 Special Topics in Nutrition**

An exploration into an identified topic in the nutrition field. Topics vary with instructor and reflect current trends or major themes in food and nutrition. Students write and present a major paper on the topic. Prerequisites: NUTR 262 Food, Culture, and Society (may be taken concurrently) and junior standing. Additional prerequisites may be required dependent upon topic.

**NUTR 427 Nutrition in the School Environment (0.5 course-credit)**

An update on current issues in child nutrition including a study of nutrition and health education curricula to promote coordinated school health in the Commonwealth's K-12 schools. Students develop nutrition education programs integrating the classroom and cafeteria including lesson plans to educate teachers, child nutrition program staff, students, and parents/care givers.

Prerequisites: NUTR 478 Community Nutrition; Coordinated Program in Dietetics students only.

**NUTR 440 Geriatric Nutrition**

An overview of the physiological and socioeconomic aspects of aging and their impact on nutrition. Course includes an in-depth discussion of nutritional assessment, nutrition programs, and chronic medical disorders associated with the older adult.

Prerequisite: NUTR 374 Human Nutrition Science.

**NUTR 478 Community Nutrition**

An introduction to the program, policies, and institutions that influence nutrition services at the local, state, and national levels. Special attention is given to the assessment, planning, intervention, and evaluation of programs targeted to populations with high nutritional risk. The role of the political process in the promotion of food and nutrition programs is examined.

Prerequisite: NUTR 381 Medical Nutrition Therapy I.

**NUTR 479 Computer Applications in Nutrition.**

A study of technology designed to enhance the efficiency and accuracy of practice in nutrition professions. Investigations include development, application and evaluation of emerging technologies used in nutrition practice.

Prerequisite: NUTR 381 Medical Nutrition Therapy I.

**NUTR 482 Management of Food and Nutrition Services**

The application of principles of management as they relate to the administration of human, physical, and financial resources of food and nutrition services. Topics include management theory, personnel selection, training, evaluation, organizational behavior, communication, governmental influences, labor management relations, marketing, and budgeting. This course, designed for Food and Nutrition majors, utilizes the case study approach, and requires the development of a business plan. **Note:** Credit will not be given for both NUTR 482 Management of Food and Nutrition Services, and BADM 272 Management Principles.

Prerequisites: NUTR 262 Food, Culture, and Society; junior status.

**NUTR 483 Medical Nutrition Therapy II**

An integration of pathophysiology, biochemistry, and nutrition concepts that form the basis for medical nutrition therapy in health care. Case study discussions and nutrition care plans are included. An additional three-hour lab is required for Coordinated Program in Dietetics students.

Prerequisites: NUTR 374 Human Nutrition Science and NUTR 381 Medical Nutrition Therapy I.

**NUTR 485 Practicum in Foodservice Systems**

A concentrated continuous experience in an off-campus foodservice system in which concepts taught in NUTR 384 Foodservice Systems are utilized and applied. NUTR 482 Management of Food and Nutrition Services must be taken either simultaneously or prior to the practicum.

Prerequisite: NUTR 384 Foodservice Systems and acceptance in the Coordinated Program in Dietetics.

**NUTR 486 Experience in Community Nutrition**

Field experience in community health settings coordinated with campus seminars. Students utilize their knowledge of normal and modified nutrition, skills in communications, recognition of socio-economic influences, and familiarity with community health agencies, resources and the legislative process. Education and motivation of individuals and groups and contributions to total health care in a community are explored.

Prerequisite: Acceptance in the Coordinated Program in Dietetics.

**NUTR 487 School Nutrition Practicum (0.5 course-credit)**

A supervised practice experience during which students implement nutrition and health education curricula integrating the classroom and cafeteria as a learning lab. Students develop staff training programs designed to improve the school nutrition environment in the school nutrition program. Lesson plans, designed to educate the whole child, are developed for teachers, students and parents/care givers and are implemented in the Commonwealth's K-12 schools. This course is supported by the Massachusetts Department of Elementary and Secondary Education, Office of Nutrition, Health and Safety Programs.

Prerequisites: NUTR 427 Nutrition in the School Environment. **Open only to students Coordinated Program in Dietetics concentration.**

**NUTR 488 Seminar in Clinical Nutrition**

A study of advanced topics in clinical nutrition, in particular, enteral, parenteral and critical care nutrition. Students present a seminar on a current topic in medical nutrition therapy. Current issues in health care as they relate to clinical nutrition management are also included.

Prerequisite: NUTR 483 Medical Nutrition Therapy II.

**NUTR 489 Clinical Experience in Dietetics (2 course-credits)**

Concentrated, supervised, continuous experience in various aspects of medical nutrition therapy. Students are placed in a cooperative medical facility where they work as a member of the health team to develop skills as an entry level dietitian. This course must be taken simultaneously with NUTR 488 Seminar in Clinical Nutrition or by permission of the instructor.

Prerequisite: Acceptance in the Coordinated Program in Dietetics.



**NUTR 490 Independent Study in Food and Nutrition**

An in-depth investigation of a specific topic relating to the student's area of interest in food and nutrition. A written proposal on the topic selected is made by the student to the faculty advisor. An oral presentation and final written report of the student's topic is required.

Prerequisite: NUTR 374 Human Nutrition Science. Application due by October 15<sup>th</sup> for spring semester and February 15<sup>th</sup> for fall semester.

**NUTR 495 Internship in Food and Nutrition**

A supervised work experience in community nutrition, foodservice management, or medical nutrition therapy. Students submit an application that identifies specific goals for the experience and a résumé. An ability to work independently is expected. A major project is required. A minimum of one eight-hour day each week, for a total of 120 hours, is required.

Prerequisites: Senior standing and a minimum GPA of 2.50 in all courses for the major. Department permission required.

**NUTR 499 Food and Nutrition Internship: U.S. Army Natick Research, Development and Engineering Center (NRDEC)**

A supervised work experience in food or nutrition as it pertains to the military. The student joins a research team in one of two areas: U.S. Army Research Institute of Environmental Medicine (USARIEM), or U.S. Army Sustainability Directorate (SusD). One eight-hour day per week, for a total of 120 hours, is required.

Prerequisites: NUTR 264 Experimental Study of Food, NUTR 381 Medical Nutrition Therapy I, and a minimum GPA of 2.50 in all courses for the major. Departmental permission required.

# Geography

**Chair: David Merwin**

Professors: Elaine Hartwick

Associate Professors: Carl Hakansson, David Merwin, Judith Otto

Assistant Professors: George Bentley, Jayson Funke

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## ENVIRONMENTAL STUDIES AND SUSTAINABILITY MAJOR (U\_ER)

### The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-C (Global Competency, Ethical Reasoning, and/or Human Diversity) requirement is satisfied through the completion of the Geography major.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### Requirements for Major:

#### Core Courses (6 Courses):

ENVS	101	Introduction to Environmental Science
GEOG	110	World Regional Geography
GEOG	135	Introduction to Environmental Studies
GEOG	203	Introduction to Physical Geography
GEOG	216	Introduction to Geographical Information Systems
MATH	117	Introduction to Statistics (Gen. Ed. Domain II-A)

## ENVIRONMENTAL SCIENCE AND SUSTAINABILITY CONCENTRATION (UERG)

### GENERAL STUDIES (UERG) (9)

#### Required Concentration Core (5 courses):

GEOG	212	Geographic Perspectives on the Global Environment
GEOG	235	Environmental Law and Policy
GEOG	240	Municipal Land Use
GEOG	260	Introduction to Urban Studies and Planning in the United States
GEOG	375	Resource Management

**Related:** Choose four (4) courses from the following:

COMM	107	Effective Speaking
CSCI	138	Information Technology and the Environment

EASC	131	Conversations with the Earth: An Introduction to Geology
GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	225	Population, Food, Global Development
GEOG	230	Geography of Natural and Man-Made Hazards
GEOG	272	Site Planning <b>or</b>
	GEOG 368	Community Development
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing
GEOG	339	Methods of Planning Analysis and Plan Making
GEOG	490	Independent Study in Geography
GEOG	495*	Internship in Geography
GEOL	231	Physical Geology
PHIL	234	Environmental Ethics
POSC	325	Public Management
POSC	329	Public Policy Analysis

\* Must be approved according to department guidelines.

## GEOGRAPHY MAJOR

### The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-C (Global Competency, Ethical Reasoning, and/or Human Diversity) requirement is satisfied through the completion of the Geography major.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### Departmental Requirements for Major:

#### Core Courses (4 Courses):

GEOG	101	Introduction to Human Geography
GEOG	110	World Regional Geography
GEOG	203	Introduction to Physical Geography
GEOG	216	Introduction to Geographical Information Systems

Geography majors must concentrate in a specialization within the major. The concentrations shown below are designed to prepare a student for a career or further study in geography. Selections of a concentration should be made as early as possible with an advisor. Students are also strongly encouraged to develop foreign language and computer skills. Geography majors may complete an approved minor through a combination of five (5) related elective courses and/or free electives. This is to be done in consultation with the student's advisor. **Note:** Regional geography courses, other than GEOG 110 World Regional Geography, are strongly recommended as related courses or free electives.

**GEOGRAPHY CONCENTRATIONS****GIS AND SPATIAL ANALYSIS (UGYA)****Required Concentration Core (4 courses):**

GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing
GEOG	486	Senior Geographic Information System Project

**Two (2) of the following regional geography courses:**

GEOG	250	Geography of the United States and Canada
GEOG	251	Geography of New England
GEOG	252	Geography of Europe
GEOG	253	Geography of Russia and the Former Soviet Republics
GEOG	254	Geography of Monsoon Asia
GEOG	255	Geography of Subsaharan Africa
GEOG	256	Geography of the Middle East
GEOG	257	Geography of Latin America
GEOG	258	Geography of the British Isles

**Related:** Choose four (4) courses in consultation with the concentration advisor (substitutions may be made with the approval of the Geography Department Chair).

CSCI	108	HTML, JavaScript Programming and Website Development
CSCI	120	Introduction to Information Technology
CSCI	140	Introduction to the Internet, Graphics, and Multimedia
GEOG	208	Medical Geography
GEOG	260	Introduction to Urban Studies and Planning in the United States
GEOG	339	Methods for Planning Analysis and Plan Making
GEOG	495*	Internship in Geography

*\* MUST BE APPROVED ACCORDING TO DEPARTMENT GUIDELINES.*

**GLOBAL STUDIES (UGYG)****Required Concentration Core (4 courses):**

GEOG	165	Global Cities
GEOG	212	Geographic Perspectives on the Global Environment
GEOG	222	Geographic Perspectives on Globalization
GEOG	460	Global Development Theories and Policies

**Three (3) of the following regional geography courses:**

GEOG	250	Geography of the United States and Canada
GEOG	251	Geography of New England

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GEOG	252	Geography of Europe
GEOG	253	Geography of Russia and the Former Soviet Republics
GEOG	254	Geography of Monsoon Asia
GEOG	255	Geography of Subsaharan Africa
GEOG	256	Geography of the Middle East
GEOG	257	Geography of Latin America
GEOG	258	Geography of the British Isles

**Related:** Choose four (4) courses in consultation with the concentration advisor (substitutions may be made with the approval of the Geography Department Chair).

GEOG	180	Native Americans: A Geographical and Legal Perspective
GEOG	201	Economic Geography
GEOG	206	Political Geography
GEOG	208	Medical Geography
GEOG	211	Cultural Geography
GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	230	Geography of Natural and Man-Made Hazards

**GEOGRAPHY WITH COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION (UGYL)**

**Required (6 courses):**

GEOG	201	Economic Geography
GEOG	206	Political Geography
GEOG	211	Cultural Geography
GEOG	250	Geography of the United States and Canada <b>or</b>
GEOG	251	Geography of New England

**Two (2) of the following regional courses:**

GEOG	250	Geography of the United States and Canada
GEOG	251	Geography of New England
GEOG	252	Geography of Europe
GEOG	253	Geography of Russia and the Former Soviet Republics
GEOG	254	Geography of Monsoon Asia
GEOG	255	Geography of Subsaharan Africa
GEOG	256	Geography of the Middle East
GEOG	257	Geography of Latin America
GEOG	258	Geography of the British Isles

**Education courses (choose A or B)**

**A. Coordinate Major in Early Childhood Education (Pre-K - Grade 2 Licensure)**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	320	The Young Child: Emergent Literacy with Field Study II
EDUC	374	Early Childhood Curriculum: Mathematics and Science with Field Study III
EDUC	376	Early Childhood Curriculum: Reading, Social Studies, and Special Needs
PSYC	200*	Psychology of Development (Gen. Ed.)

*The Professional Semester (4 course-credits):*

EDUC	431	Early Childhood Professional Practicum A (2 Course-credits)
EDUC	432	Early Childhood Professional Practicum B (2 Course-credits)

**B. Coordinate Major in Elementary Education (Grades 1 - 6 Licensure)**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	322	The Child and Literacy with Field Study II
EDUC	341	Elementary Curriculum: Mathematics with Field Study III
EDUC	346	Elementary Curriculum: Science, Social Studies and Special Needs
PSYC	200*	Psychology of Development

*The Professional Semester (4 course-credits):*

EDUC	437	Elementary Professional Practicum A (2 Course-credits)
EDUC	438	Elementary Professional Practicum B (2 Course-credits)

*\*Note: PSYC 200 may be used to fulfill a requirement for general education.*

**COORDINATE EDUCATION MAJOR WITH INTERDISCIPLINARY MAJOR: SPECIALIZATION IN GEOGRAPHY AND EARTH SCIENCE (UIDR)  
(Home Department-Geography)**

The Geography Department sponsors the Interdisciplinary Major in Geography and Earth Science for students seeking licensure at the early childhood or elementary level. For more specific information, refer to the Education section of the catalog.

## **ENVIRONMENTAL SCIENCE AND POLICY MAJOR (UEVG) (Home Department-Geography)**

This major is a collaboration with the Geography and Biology departments and is designed to provide the interdisciplinary background necessary for an environmental professional today. It combines a strong foundation in science, emphasizing biology, with broad training in geographical theory and techniques. This interdisciplinary training is necessary to create and implement environmental policy. This program will prepare students to solve complex multidisciplinary problems and to communicate effectively with the scientific community and the general public. Graduates with this major will be prepared to successfully obtain positions with consulting firms, governmental agencies, private corporations, and non-profit organizations. They will be prepared for work as environmental analysts, town wetlands administrators, environmental educators, or environmental scientists. They will also be prepared to pursue graduate studies in Environmental Science, Conservation Biology, Resource Management, Environmental Planning, Environmental Engineering, Environmental Law, and Environmental Education. Graduates who choose not to pursue careers in Environmental Science will be well prepared for any career that requires a strong science background emphasizing data analysis, critical thinking, integration of complex information, spatial interpretation skills, effective communication and problem resolution skills.

### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Sciences) requirement is satisfied through the completion of the Environmental Science major.

### **Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### **Required Core courses (13):**

BIOL	130	Principles of Biology (Gen.Ed. Domain II-B & Lab)
BIOL	251	Vascular Plant Taxonomy
BIOL	248	Principles of Ecology
CHEM	103	Introductory Chemistry* (Gen.Ed. Domain II-B, Lab)
CHEM	201	Introductory Organic Chemistry and Biochemistry
ECON	102	Principles of Microeconomics (Gen.Ed. Domain III-B)
GEOL	231	Physical Geology (Gen.Ed. Domain II-B, Lab)
GEOG	216	Introduction to Geographical Information Systems
GEOG	235	Environmental Law and Policy
GEOG	375	Resource Management
ENVS	101	Introduction to Environmental Science
ENVS	202	Data Analysis for Scientists
ENVS	451	Senior Thesis in Environmental Science I (0.5 course-credit)
ENVS	452	Senior Thesis in Environmental Science II (0.5 course-credit)

### **Restricted Electives (Six (6) courses):**

#### ***Science -***

#### **Choose two (2) courses:**

BIOL	211	Biology of the Reptilia
BIOL	232	Invertebrate Zoology

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BIOL	335	Wildlife Biology
BIOL	336	Ornithology
BIOL	341	Marine Biology
BIOL	391	Principles of Tropical Ecology and Conservation: Field Study
EASC	241	Introduction to Meteorology (Gen.Ed. Domain II-B)
EASC	246	Oceanography (Gen.Ed. Domain II-B)
GEOL	233	Environmental Geology
PHYS	201	Introductory Physics (Gen.Ed. Domain II-B, Lab)

**Policy and Planning -****Choose three (3) courses:**

ANTH	161	Cultural Anthropology (Gen.Ed. Domain III-B)
GEOG	135	Introduction to Environmental Studies
GEOG	212	Geographical Perspectives on the Global Environment
GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	225	Population, Food, and Global Development
GEOG	230	Geography of Natural and Man-Made Hazards
GEOG	240	Municipal Land Use
GEOG	272	Site Planning
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing
GEOG	339	Methods for Planning Analysis & Plan Making
PHIL	234	Environmental Ethics
POSC	223	Bureaucratic Politics and Power
POCS	250	American Legal Systems
POSC	329	Public Policy Analysis

**Communication -****Choose one (1) course:**

COMM	107	Effective Speaking (Gen.Ed. Domain I-A)
COMM	115	Introduction to Speech Communication
COMM	328	Argumentation and Advocacy
ENGL	225	Introduction to Journalism
ENGL	372	Technical Writing

\*Students may elect to take CHEM 107 Principles of Chemistry and CHEM 108 Principles of Chemistry and Quantitative Analysis. Students choosing this option must take CHEM 207 Organic Chemistry I as a Restricted Elective in the Science area.



**MINORS****MINOR IN GEOGRAPHIC INFORMATION SYSTEMS (GIS) (5 COURSES)**

GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	216	Introduction to Geographical Information Systems
GEOG	316	Advanced Geographic Information Systems

*Choose two (2) additional courses from the following:*

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	120	Introduction to Information Technology
CSCI	138	Information Technology and the Environment
CSCI	140	Introduction to the Internet, Graphics, and Multimedia
ENVS	202	Data Analysis for Scientists
GEOG	208	Medical Geography
GEOG	328	Introduction to Remote Sensing
GEOG	490	Independent Study in Geography
GEOG	495*	Internship in Geography
MATH	117	Introduction to Statistics or
		MATH 208 Biostatistics

*\* Must be approved according to department guidelines.*

**MINOR IN GEOGRAPHY (GEO) (5 COURSES)**

GEOG	101	Introduction to Human Geography
GEOG	212	Geographic Perspectives on the Global Environment

One (1) regional geography course.

Two (2) additional geography courses other than regional geography.

**MINOR IN LATIN AMERICAN STUDIES (LAS) (5 COURSES)**

Students interested in this program must apply to the Chairs of either the Geography, History, or Modern Languages Departments. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. **Note:** Modern Language majors must take at least two (2) additional approved courses, outside the major, and not listed above. Approval must be given by the Chair of the Modern Languages Department. No Latin American Studies minor will be awarded without compliance with the above format.

*The minor requires five (5) courses as follows:*

**Four (4) Required courses:**

GEOG	257	Geography of Latin America
HIST	336	Latin America from the Conquest to the Present
MLSP	332	Advanced Spanish Composition and Conversation II or the equivalent
MLSP	334	Spanish-American Culture and Civilization

**One (1) Elective Course:**

The student must choose at least one (1) of the following courses:

HIST	314	United States Diplomatic History
SPAN	432	Contemporary Trends in Spanish-American Thought
SPAN	435	The Boom in Latin-American Literature

### GEOGRAPHY COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses			Domain(s)
GEOG	101	Introduction to Human Geography	III-B
GEOG	110	World Regional Geography	III-C
GEOG	165	Global Cities	III-C
GEOG	180	Native Americans: A Geographic and Legal Perspective	III-B
GEOG	206	Political Geography	III-C
GEOG	211	Cultural Geography	III-B
GEOG	222	Geographic Perspectives on Globalization	III-C
GEOG	250	Geography of the United States and Canada	III-C
GEOG	252	Geography of Europe	III-C
GEOG	253	Geography of Russia and the Former Soviet Republics	III-C
GEOG	254	Geography of Monsoon Asia	III-C
GEOG	255	Geography of Sub-Saharan Africa	III-C
GEOG	256	Geography of the Middle East	III-C
GEOG	257	Geography of Latin America	III-C
GEOG	258	Geography of the British Isles	III-C
GEOG	290	Non-Western Regional Geography: Field Study	III-C
GEOG	291	Western Regional Geography: Field Study	III-C

### ENVIRONMENTAL SCIENCE COURSE DESCRIPTIONS

#### ENVS 101 Introduction to Environmental Science

A comprehensive survey of the principles concerning the interactions of humans and their environment for students intending to major in Environmental Science and Policy. The scientific foundations and the policy implications of population growth, natural resources, pollution, and agriculture are examined in the context of present capabilities and the prospects for future development. No laboratory.

Prerequisites: ENGL 110 Expository Writing (may be taken concurrently) and one (1) credit bearing math course (may be taken concurrently).

#### ENVS 202 Data Analysis for Scientists

A comprehensive study of how to use powerful statistical tools to prepare, analyze, interpret, and visualize data collected in the physical, biological and environmental sciences. Practical and applied analysis are emphasized using case studies and critical assessment of the use of statistical methods in published literature. Topics include design of experiments, univariate distributions, exploratory data analysis, inferential statistics and hypothesis testing, linear and generalized linear models, and time-series analysis, using the statistical computing and graphics software R. Non-parametric analyses and careful consideration of confidence intervals are emphasized.

Prerequisite: MATH 123 College Algebra or the eligibility to enroll in MATH 200 Precalculus.

**ENVS 451 Senior Thesis in Environmental Science I (0.5 course-credit)**

The first of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students will apply the methods of scientific inquiry by developing an original research proposal. Topics that will be discussed include: scientific method, problem definition, literature survey, resource bibliography, scientific writing, oral presentation skills, research design, and statistical data analysis. A final grade of C- in this course is required in order to register for the second-semester course ENVS 450.

Prerequisites: ENVS 101 Introduction to Environmental Science, CHEM 103 Introductory Chemistry, ENVS 202 Data Analysis for Scientists, at least two (2) 200-level science courses, one (1) 200-level policy course, completion or concurrent enrollment in GEOG 375 Resource Management, and minimum cumulative QPA of 1.70 in all courses required for the Environmental Science major.

**ENVS 452 Senior Thesis in Environmental Science II (0.5 course-credit)**

The second of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students complete their original research project by acquiring, analyzing, summarizing, and interpreting their data in both a written thesis and an oral presentation to the campus community.

Prerequisite: Completion of ENVS 451 Senior Thesis in Environmental Science I with a minimum grade of C- (1.70).

**GEOGRAPHY COURSE DESCRIPTIONS****GEOG 101 Introduction to Human Geography (Gen. Ed. Domain III-B)**

An introduction to geography, focusing on its relevance to contemporary man. Emphasis is placed on basic concepts and the geographic point of view

**GEOG 110 World Regional Geography (Gen. Ed. Domains III-C)**

An introduction to the nature and scope of geography, the techniques and applications of geography, and the geographical context of current social, economic, political, and environmental problems in the major regions of the world. Course focuses mainly on non-Western regions.

**GEOG 135 Introduction to Environmental Studies**

An introduction to the political, economic, ethical, cultural, scientific, and geographical conditions that have framed environmental issues in the United States. Critical analysis of specific environmental issues such as over-fishing, deforestation, nuclear sites, and air pollution will be used for examination of environmental policies and the many variables that affect these policies.

**GEOG 165 Global Cities (Gen. Ed. Domain III-C)**

A thematic investigation of urban forms and processes using key cities in the non-western world as case studies. Topics include the cultural, political, historical, and economic contexts of cities; planning ideologies; globalization; race and segregation; spatialization of class differences; population growth; environmental issues; and other current concerns in global urbanization. Note: This is a writing intensive course. Prior completion of ENGL 110 Expository Writing is recommended.

**GEOG 180 Native Americans: A Geographical and Legal Perspective (Gen. Ed. Domain III-B)**

An introduction to Indian law and the unique relationship between the tribes and the federal and state governments. This body of law can have radically different effects on tribes depending in part on their geographical location. The course then examines certain tribal issues in depth, and explores how the geographical location of the tribe and the corresponding climate and terrain make these issues unique to the tribe.

**GEOG 201 Economic Geography**

An introduction to geography as a social science focusing on the spatial organization of man's economic activities. Emphasis is on factors influencing their occurrence and distribution, and on the geographical problems of selecting the best location or the best use of a given location for agriculture, manufacturing, and service activities.

Prerequisite: Sophomore standing.

**GEOG 203 Introduction to Physical Geography**

A geographical analysis of the physical phenomena and processes on the surface of the earth, emphasizing weather elements, patterns of climate and vegetation, soil, water features, landforms, and topography.

**GEOG 206 Political Geography (Gen. Ed. Domains III-C)**

A spatial analysis of the rise of the nation state and a comparative examination of political structures and processes within states. Geopolitical processes, such as imperialism, are studied through time and space. The formation of new types of political and social movements at a number of global and local levels is discussed. In addition, the role of class, race, and gender is explored as it relates to issues of power and uneven access to power over space.

**GEOG 208 Medical Geography**

An examination and analysis of the spatial aspects of such health-related issues as disease ecology and healthcare services. The course applies geographical information, perspectives, and methods to the study of health, disease, and healthcare. The course begins with a discussion of disease ecology, or how human behavior, in its cultural and socioeconomic context, interacts with environmental conditions to cause morbidity and mortality. Students use geographic information systems (GIS) to trace the linkages between disease agents, disease vectors, and their hosts, and the diffusion of disease. The course also addresses the spatial distribution, and access and utilization of medical personnel and facilities.

**GEOG 211 Cultural Geography (Gen. Ed. Domain III-B)**

A study of spatial variations among cultural groups and the spatial functioning of society. The course focuses on contemporary issues related to the ways language, religion, economy, government, and other cultural phenomena vary or remain constant from one place to another. The study of cultures is organized around five themes: cultural region, diffusion, ecology, integration, and landscape.

**GEOG 212 Geographic Perspectives on the Global Environment**

An introductory survey stressing the geographic approach to the study of man/land relationships. Emphasis is placed on the impact of human activities on the environment and on conflicts between resource exploitation and environmental quality. Contemporary geographic themes concerning the environment: perception, natural resource utilization, modification by urbanization, and environmental regions are studied. Particular focus is on New England and the United States.

Prerequisite: Sophomore standing or permission of instructor.

**GEOG 214 Spatial Analysis Using Geographic Information Systems**

A basic introduction to the skills and techniques needed by geographers. The course focuses on geographic applications of quantitative methods and uses the Statistical Package for the Social Sciences (SPSS) and Geographic Information Systems (GIS) software for analysis and presentation of data.

**GEOG 215 Religion as a Geographic Phenomenon**

A study of religious systems and their geographic characteristics; religious organization of space; origins of organized religions; distribution of religions; attitudes towards contemporary ecological problems conditioned by religious ideology; and comparisons of such attitudes between ancient matriarchal nature religions and more modern patriarchal religions.

**GEOG 216 Introduction to Geographical Information Systems**

An introduction to the use of Geographical Information Systems (G.I.S.) in analyzing spatial data, including methods of data acquisition, and the theory and design of G.I.S. storage and to various aspects of retail location, urban planning, and environmental concerns.

Prerequisite: Prior knowledge of computers, with permission of instructor, or CSCI 120 Introduction to Information Technology.

**GEOG 222 Geographic Perspectives on Globalization (Gen. Ed. Domain III-C)**

An examination of globalization as a spatial process. Economic, social, political, and cultural analyses are integrated to look at geographically uneven development, the spatial expansion of power systems, which take many forms, and economic and environmental issues between nation states and global governance institutions.

**GEOG 225 Population, Food, and Global Development**

A critical examination of a fundamental problem facing contemporary civilization: how to address the relationship between the increasing size of the global population and limited natural resources. The availability, production and consumption of food in particular, are fraught with problems subject to debates and ideological positionings. These particularly concern inequities of race, class, and gender embedded in power relationships between Third world producers and First world consumers. Alternative analyses are presented using development theory and commodity chain analysis to look at global uneven development through the connections between food consumption in the global core with food production in the global periphery. The course concludes by looking at the emergence of social movements, which attempt to connect Third World agricultural producers with First World consumers.

**GEOG 230 Geography of Natural and Man-Made Hazards**

A geographical analysis of selected hazardous conditions of the natural and man-made environment at global, regional, and local levels. In a given semester, the course may emphasize natural or man-made hazards. Specific natural hazards covered include earthquakes and volcanoes; hurricanes, tornadoes, and severe storms; coastal flooding and erosion; and river flooding. Specific man-made hazards include nuclear power plants, toxic wastes, transportation and treatment of hazardous materials, structure fires and arson, and terrorism. Field trips are included.

**GEOG 235 Environmental Law and Policy**

Designed for the non-legal student whose interest in the environment or whose field of present or future employment would be enhanced by a basic understanding of legal and policy matters as they apply to the environment. The course begins with a discussion of the judicial system, followed by an introduction to the concepts of administrative and common law. The course addresses the National Environmental Policy Act, the Clear Air Act, the Clean Water Act, and the various hazardous waste statutes. The course applies this body of law to current environmental issues addressing the political, economic, cultural, and ethical variables that influence environmental policy in the United States.

**GEOG 240 Municipal Land Use**

An overview of legal and policy matters as they apply to land use in local municipalities. Topics include zoning and subdivision regulations, wetland protection, comprehensive permits, and protection of open space.

**GEOG 250 Geography of the United States and Canada (Gen. Ed. Domain III-C)**

A broad regional survey of the natural and cultural landscape features of the United States and Canada, with emphasis on processes of urban-economic development and changing patterns of population, settlement, and land use.

**GEOG 251 Geography of New England**

A survey of the natural landscape features and the present geographical development of New England as a representative region of the United States. Emphasis is on the emerging patterns and issues of the region's economic and urban development and how it interacts with North America and the world. Field trips.

**GEOG 252 Geography of Europe (Gen. Ed. Domain III-C)**

An examination of the geographical factors that have contributed to the natural and cultural landscape of modern Europe, excluding the former U.S.S.R. The course extensively addresses issues of gender, race, and social class as they relate to demographic and economic changes in Europe.

**GEOG 253 Geography of Russia and the Former Soviet Republics (Gen. Ed. Domain III-C)**

A regional survey of the fifteen successor states of the Soviet Union. Emphasis is on the changing patterns of economic and cultural geography.

**GEOG 254 Geography of Monsoon Asia (Gen. Ed. Domain III-C)**

An analysis of Southern, Southeastern and Eastern Asia in terms of their natural environment, population distribution and problems, regional divisions, and current problems of economic development.

**GEOG 255 Geography of Sub-Saharan Africa (Gen. Ed. Domain III-C)**

An examination of the physical and cultural landscape of Africa south of the Sahara, with special emphasis on the native cultures of the area and their influence on the landscape; the revolutionary effects of European interventions and conquests; and the modern political, cultural, and economic climates.

**GEOG 256 Geography of the Middle East (Gen. Ed. Domain III-C)**

Physical, cultural and political environments which contribute to the instability that exists in Southwest Asia and North Africa.

**GEOG 257 Geography of Latin America (Gen. Ed. Domains III-C)**

An exploration of Latin America's cultural, political, and economic characteristics. Issues of development, gender, and changing position in the global system are examined. Particular attention is paid to the pre-Columbian historical geography of the continent and the problems presently facing indigenous peoples.

**GEOG 258 Geography of the British Isles (Gen. Ed. Domains III-C)**

An analysis of the environmental, political, and cultural features of the United Kingdom and Republic of Ireland, framed in regional and global contexts. The course focuses on challenges in economic development, historic and current patterns of migration, avenues toward conflict resolution, and the region's role in globalization.

**GEOG 260 Introduction to Urban Studies and Planning in the United States**

A survey and analysis of the geographic forces that necessitate urban planning in the United States. Topics covered include the history of urbanization and planning in the United States, the geographic study of cities and towns with emphasis on the origins and problems of urban sprawl, and various other urban problems of American cities and towns that necessitate land use planning and zoning. Local field trips are included.

**GEOG 272 Site Planning**

An introduction to the concepts and tools required in professional city and regional planning practice at the scale of the development site. Topics include plan reading; graphic representation; site analysis; fundamentals of site engineering; plan review; and finance and development of sites using private, state, and federal funding mechanisms.

Prerequisite: GEOG 260 Introduction to Urban Studies and Planning in the United States.

**GEOG 290 Non-Western Regional Geography: Field Study (Gen. Ed. Domain III-C)**

An exploration of a non-Western geographical region through an actual field study. The focus is on the physical and cultural geography of the visited area, with special emphasis on the significance of historical, cultural, and recreational sites on the changing patterns of economic, political, and cultural geography. Location is announced when offered.

**GEOG 291 Western Regional Geography: Field Study (Gen. Ed. Domain III-C)**

An exploration of a western geographical region through an actual field study. The focus is on the physical, cultural, and historical geography of the visited area, with specific emphasis on the significance of historical, cultural, and recreational sites on the changing patterns of economic, social, and cultural geography. Emphasis is placed on an understanding of differing experiences and perspectives relating to issues of gender, race, and class in the region. Location of region is announced when offered. NOTE: Students may take the course twice for credit; however, in no case may the student take two field study courses in the same Western region.

**GEOG 316 Advanced Geographic Information Systems**

An advanced course in geographic information systems (GIS). The purpose of this course is to examine how GIS can be used for spatial analysis and modeling applications. Topics include a number of advanced analytical techniques using GIS, including hydrologic modeling, location analysis, spatial interpolation, nearest neighbor estimation, map algebra and urban growth simulation.

Prerequisite: GEOG 216 Introduction to Geographical Information Systems.

**GEOG 328 Introduction to Remote Sensing**

An introductory course in digital remote sensing and satellite imagery analysis. The goal of this course is to introduce the fundamental principles of remote sensing with an emphasis on the theoretical and applied realms of the discipline. Topics include physics of electromagnetic radiation, digital photogrammetry, image interpretation, spatial resolution, airborne and space-borne sensors and image classification. All topics discussed in lecture are reinforced through laboratory exercises and field work.

Prerequisite: GEOG 216 Introduction to Geographical Information Systems.

**GEOG 339 Methods for Planning Analysis and Plan Making**

A focus on the specific techniques of city plan preparation and presentation, and on the methods of involving local citizens in the planning process. Among the techniques included are site analysis, field surveys, mapping and graphics for data presentation, and organizing public participation workshops. Computer applications for planning are surveyed.

**GEOG 368 Community Development**

An examination of the methods of community development including industrial promotion, retail revitalization, downtown renewal, and tourism development. Emphasis is on techniques to assist and encourage business growth and retention. Field trips and practical exercises including preparation of community development handbooks are included.

Prerequisite: GEOG 201 Economic Geography or permission of the instructor.

**GEOG 370 Location Theory**

A survey of the classical and current location theories, which are used by geographers, planners, and site analysts. Location theories include agricultural, industrial, retail, and service locations. Concepts, methods, and techniques of spatial distribution, spatial function, and spatial relationships are emphasized. Cartographic analysis and GIS applications are major parts of the course.

Prerequisite: GEOG 201 Economic Geography or permission of instructor.

**GEOG 375 Resource Management**

An analysis of resource control methodologies. Emphasis is on territorial and developmental impacts of political decisions regarding resources, conflicts between technological and ecological approaches to environment quality, national and international aspects of resource exploitation and utilization. This course includes preparation of environment impact statements, study of laws relating to the use and abuse of the environment, and field trips.

Prerequisite: A course on environment or permission of the instructor.

**GEOG 400 Cosmos (Specific title to be announced when offered)**

An analysis of a contemporary social, economic, environmental, or regional problem from a geographic perspective. The specific focus of the course varies but emphasis is always placed on the geographer's contribution to understanding the issues involved.

Prerequisite: Permission of instructor may be required.

**GEOG 460 Global Development Theories and Policies**

An upper-level seminar examining theories of global development and policies. Beginning with Modernization theory, the historical spectrum of concepts of development is explored, concluding with current post-Feminist and Post-Modern theories. Philosophical traditions behind each development paradigm, along with actual policy decisions, are examined. Global institutions and actors involved with the debates and critiques of development theories and policies are discussed.

Prerequisites: Senior standing and permission of instructor.

**GEOG 486 Senior Geographic Information Systems Project**

A supervised study using Geographic Information Systems (GIS) methods in the area of the student's interest. Any student wishing to enroll in this course must submit a written proposal for the study topic to the course supervisor and the topic must be approved by the supervisor prior to enrollment into the course. The student must meet with the course supervisor at least six times during the semester. At the end of the semester, the student must present the results of the study in a research paper or poster as well as make an oral presentation to the Geography Department faculty. The final grade for the course is based on the quality and completeness of the study.

Prerequisites: Senior standing and permission of instructor.

**GEOG 490 Independent Study in Geography**

A Geography major (or minor) with demonstrated ability to use geographical tools and research methods may independently pursue an in-depth investigation of a geographic topic under the guidance of a faculty advisor. The student must present a written request on the approved form. Admission to this course must be approved by the Geography Department at least three weeks prior to registration.

**GEOG 495 Internship in Geography**

A supervised practical experience in a public or private agency, appropriate to the student's training and interests. Admission to this course must be approved by the Geography Department Chair according to published departmental guidelines.

Prerequisites: Senior standing and permission of instructor; 3.00 GPA in Geography major, 2.75 overall GPA; completion of the major core courses.

# History

## Chair: Gregory Halfond

Professors: Richard Allen, Jon Huibregtse  
 Associate Professors: Maria (Lissa) Bollettino, Gregory Halfond, Bridgette Sheridan  
 Assistant Professors: Joseph Adelman, Sarah Mulhall Adelman, Lori Bihler, Stefan Papaioannou

Instructor:

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-A (Perspectives of the Past) requirement is satisfied through the completion of the History major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## HISTORY MAJOR (UHIG)

History is the study of the human past. Through the careful examination of historical evidence of all kinds from societies and cultures around the world, history opens a window onto the past that helps us understand the complexity of human experience and the world we live in today. The Department of History offers a wide range of courses in American, European, and world history in order to prepare students for successful lives and careers through a program that values academic rigor and excellence in a liberal arts education and fosters responsible citizenship and ethical behavior. The study of history encourages students to appreciate and understand the complexity of the human experience in all parts of the world, to develop skills in research and analysis that enhance critical thinking, to acquire effective communication skills, and to respect diverse opinions and cultural perspectives.

## Departmental Requirements for the Major (11 courses):

### Two (2) introductory courses to be apportioned as follows:

#### (a) One (1) 100-level course with a focus on the United States:

HIST	120	American Lives
HIST	151	United States History to Reconstruction
HIST	152	United States History since Reconstruction
HIST	165	Slavery, Race, and Rights in American History

#### (b) One (1) 100-level course with a focus outside the United States:

HIST	123	Beasts, Battles, and Ballads: Life, Literature, and Art in Medieval Europe
HIST	149	Twentieth Century China
HIST	153	Europe and the World to circa 1450
HIST	154	Europe and the World since circa 1450



HIST	155	Comparative History of World Civilizations
HIST	176	Atlantic Revolutions
HIST	186	History of Modern Violence

**Two (2) core courses:**

HIST	225	Historiography
HIST	250	Historical Research and Writing

**Capstone (1):**

HIST	450	Seminar in History
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*All of the above courses, with the exception of the Capstone, should be taken prior to the end of the sophomore year.*

**Remaining six (6) courses must be at the 290-level or above and be apportioned as follows:**

- (a) A minimum of one (1) HSTA course at 290 or 300-level (American history)**
- (b) A minimum of one (1) HSTE course at 290 or 300-level (European history)**
- (c) A minimum of one (1) HSTW course at 290 or 300-level (World history)**

No more than four (4) 200-level courses, including HIST 225 Historiography and HIST 250 Historical Research and Writing, may be applied toward completion of major requirements (includes up to two (2) 200-level courses accepted as transfer credits).

The Department also offers History majors a number of internships and independent-study opportunities. History majors who anticipate pursuing graduate study in history are strongly encouraged to study a foreign language through at least the intermediate level.

**Group A – AMERICAN HISTORY:**

HSTA	290	Special Topics Seminar in American History
HSTA	302	Colonial America
HSTA	304	The American Revolution
HSTA	306	The Early American Republic
HSTA	308	American Civil War Era
HSTA	309	Modern United States History: 1945 to the Present
HSTA	310	Emergence of a Modern Nation
HSTA	313	Civil Rights Movements in the United States
HSTA	314	United States Diplomatic History
HSTA	317	The Family in American Life
HSTA	321	Media and Communications in American History
HSTA	323	African-American History
HSTA	331	Harding to Roosevelt: The United States 1920 to 1945
HSTA	340	Industrial Conflict in the United States
HSTA	341	Total, Limited, and Cold: America at War in the 20 <sup>th</sup> Century
HSTA	355	Topics in American History
HSTA	386	Women in American History

**Group B – EUROPEAN HISTORY:**

- HSTE 290 Special Topics Seminar in European History
- HSTE 302 Ancient Greece: From the Homeric through the Hellenistic Age
- HSTE 308 Ancient Rome: The Republic and the Empire
- HSTE 329 The Viking Age
- HSTE 349 The 1960's in Europe and the United States
- HSTE 355 Topics in European History
- HSTE 365 The History of Gender, Sexuality, and the Body
- HSTE 367 Faith and Reason in Medieval Europe
- HSTE 370 Intellectual History of Modern Europe
- HSTE 371 Women in Europe, 1500- 2000
- HSTE 372 Renaissance and Reformation Europe, 1350 to 1650
- HSTE 376 History of Modern France
- HSTE 377 History of Medicine and Society in the West – From the Ancient World to Present
- HSTE 378 Modern Britain
- HSTE 380 Blood, Iron, and Republics: Germany from 1866 to the Present
- HSTE 381 Remaking Europe: History, Politics, Culture since World War II
- HSTE 382 Empires in Collision: Southeastern Europe, 1683 to the Present
- HSTE 385 Portraits in European/World History
- HSTE 386 Revolutionary France (1750-1815)
- HSTE 388 The Path to Modernity: Russia from 1682 to the Present
- HSTE 394 The History of Late Antiquity

**Group C – WORLD HISTORY:**

- HSTW 290 Special Topics Seminar in World History
- HSTW 301 Native American History, 1500-1800
- HSTW 318 The First World War: Conflict, Culture, and Society
- HSTW 321 European and American Muslims: A History
- HSTW 337 Caribbean History
- HSTW 345 Networks and Empires – Economic History of the Atlantic World
- HSTW 355 Topics in World History
- HSTW 356 Holocaust and Genocide in the 20th Century
- HSTW 359 Slavery and Abolition
- HSTW 369 The History of the Crusades
- HSTW 383 Making of the Modern Middle East
- HSTW 392 Africa and the World

## **HISTORY MAJOR/HISTORY TEACHING CONCENTRATION (UHIT) (WITH MINOR IN SECONDARY EDUCATION)**

To be eligible for teacher licensure in History Grades 5-8 or Grades 8-12 students must complete the History major with History Teaching Concentration (UHIT) plus the minor in secondary education. NOTE: **Students are required to maintain a GPA of 3.00 or above within this concentration.**

In addition to the requirements for the History Major listed above, the requirements for the History major with a History Teaching Concentration (UHIT) are as follows:

- 1) Students must also take the following social science courses:
 

ECON	101	Principles of Macroeconomics (Gen. Ed. Domain III-A)
GEOG	110	World Regional Geography (Gen. Ed. Domain III-C)
POSC	110	Introduction to American Politics (Gen. Ed. Domain III-B)
- 2) Completion of the Secondary Education minor requirements. Prior to student teaching experience, the student must have taken all of the required education courses, plus nine (9) history courses and two (2) social science courses.
- 3) Recommended courses:
 

SOC	101	Introduction to Sociology (Gen. Ed. Domain III-B) <b>or</b>
		SOC 130 Social Problems (Gen. Ed. Domain III-B)

A world language course beyond the General Education requirement.

## **COORDINATE EDUCATION MAJOR WITH INTERDISCIPLINARY MAJOR: SPECIALIZATION IN SOCIAL SCIENCES (UIDD) (Home Department-History)**

The History Department sponsors the Interdisciplinary Major in Social Sciences for students seeking licensure at the early childhood or elementary level. For more specific information, refer to the Education section of the catalog.

## **COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION**

Students pursuing initial licensure in either Early Childhood or Elementary Education may combine a major in History with the Coordinate Major in Education. The Department also sponsors the Interdisciplinary Major in Social Sciences. For a complete description of these programs, refer to the Education section of the catalog, or consult the History Department advisor for Coordinate Majors in Education.

## **MINORS**

### **MINOR IN HISTORY (5 COURSES)**

Any five (5) courses from the History Department with a maximum of one (1) internship and one (1) independent study.

### **MINOR IN AMERICAN STUDIES (5 COURSES)**

To earn an American Studies minor, students must apply in writing to the Chair of either the English or History Department and have a sequence of courses designed and approved to meet specific goals. Applications are available in either Chair's office. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No American Studies minor will be awarded without compliance with the above format.

The minor in American Studies requires five (5) courses representing at least three (3) disciplines, distributed as follows:

A. One (1) of the following courses in American literature:

ENGL	243	The American Short Story
ENGL	245	The American Novel
ENGL	261	American Writers I
ENGL	262	American Writers II

B. One (1) of the following courses in American history:

HSTA	318	Religion in America
HSTA	386	Women in American History

C. A total of three (3) courses from at least two of the following disciplines: *(At least three disciplines must be represented in the total of five courses.)*

***Art & Music***

ARTH	282	American Art
MUSC	141	American Musics
MUSC	151	The History and Literature of Jazz

***Biology***

BIOL	103	Ecological Implications of Conservation
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***Economics***

ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
ECON	230	Urban Economics

***English***

ENGL	243	The American Short Story
ENGL	245	The American Novel
ENGL	260	American Ethnic Literature
ENGL	261	American Writers I
ENGL	262	American Writers II
ENGL	353	Whitman, Dickinson, and Frost

***Geography***

GEOG	251	Geography of New England
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***History***

HIST	151	United States History to Reconstruction
HIST	152	United States History since Reconstruction
HSTA	308	American Civil War Era
HSTA	310	Emergence of a Modern Nation
HSTA	318	Religion in America

***Sociology***

SOCI	130	Social Problems
SOCI	251	Cities and Communities
SOCI	267	Sociology of Subcultures

SOCI	315	Social Class
SOCI	340	Sociology of Work

**Interdisciplinary/Interdepartmental:**

INTD	490	Independent Study in American Studies (see INTERDISCIPLINARY COURSES for course description)
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**MINOR IN LATIN AMERICAN STUDIES (5 COURSES)**

Students interested in this program must apply to the Chairs of either the Geography, History, or Modern Languages Departments. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. **Note:** Modern Language majors must take at least two (2) additional approved courses, outside the major, and not listed above. Approval must be given by the Chair of the Modern Languages Department. No Latin American Studies minor will be awarded without compliance with the above format.

**The minor requires five (5) courses as follows:****Four (4) Required courses:**

GEOG	257	Geography of Latin America
HSTW	337	Caribbean History
SPAN	302	Advanced Spanish Composition and Conversation II or the equivalent
SPAN	334	Spanish-American Culture and Civilization

**One (1) Elective Course from the following:**

HSTA	314	United States Diplomatic History
SPAN	432	Contemporary Trends in Spanish-American Thought
SPAN	435	The Boom in Latin-American Literature

**MINOR IN MUSEUM STUDIES (7 COURSES)**

This interdepartmental minor requires that students take a minimum of five (5) courses outside of their major department. Students are strongly encouraged to complete a museum internship to complement the minor. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. No Museum Studies minor will be awarded without compliance with the above format.

**The minor requires five (5) to seven (7) courses as follows:****One (1) Required course:**

INTD	371	Museum Studies
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**Choose two (2) of the following:**

ANTH	172	Interpreting the Past: Archaeological Perspectives (Gen.Ed. Domain III-A)
FASH	223	History of Costume (Gen.Ed. Domain III-A)
FASH	253	Cultural Dress (Gen.Ed. Domain III-C)
FASH	278	History of Furniture
FASH	347	History of Textiles

**Choose two (2) of the following:**

ARTH	200	Art and Social Values (Gen.Ed. Domain III-C)
ARTH	272	History of Art II (Gen.Ed. Domain III-A)
ARTH	282	American Art (Gen.Ed. Domain I-B)
INTD	381	Museum Seminar

**Choose two (2) of the following:**

HIST	154	Europe and the World since circa 1450 (Gen.Ed. Domain III-A)
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One (1) 300-level history course approved by the department chair

## HISTORY COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses			Domain(s)
HIST	120	American Lives	I-B
HIST	123	Beasts, Battles, and Ballads: Life, Literature, and Art in Medieval Europe	I-B
HIST	149	Twentieth Century China	III-A
HIST	151	United States History to Reconstruction	III-A
HIST	152	United States History since Reconstruction	III-A
HIST	153	Europe and the World to circa 1450	III-A
HIST	154	Europe and the World since circa 1450	III-A
HIST	155	The Comparative History of World Civilizations	III-C
HIST	165	Slavery, Race, and Rights in American History	III-A
HIST	176	Atlantic Revolutions	III-A
HIST	186	History of Modern Violence	III-A
HIST	200	Quantitative History	II-A

## HISTORY COURSE DESCRIPTIONS

### *Lower Division Courses*

#### **HIST 120 American Lives (Gen. Ed. Domain I-B)**

An examination of autobiographies and memoirs by Americans both well-known and obscure. These reflections by people from diverse backgrounds who made and experienced American history provide insight and perspective on the historical periods in which they lived. Texts vary by semester.

#### **HIST 123 Beasts, Battles, and Ballads: Life, Literature, and Art in Medieval Europe (Gen. Ed. Domain I-B)**

An introduction to European culture and cultural artifacts of the Middle Ages (ca. 500-1500 AD). Students engage with a wide variety of textual, material, and artistic productions which not only reflect their unique compositional contexts but reveal the European Middle Ages to be a historical epoch characterized more by dynamism than darkness. In addition, the course challenges popular assumptions about cultural uniformity in the period and locale under consideration, emphasizing instead cultural diversity.

**HIST 149 Twentieth Century China (Gen. Ed. Domain III-C)**

A survey of Chinese history from 1900 to the present. Students assess important political, cultural, and social changes during the last century in both the People's Republic of China (PRC) and the Republic of China (ROC). The class focuses on the effects of imperialism, the Chinese Civil War, and how the two countries have developed independently, yet linked, since 1949.

**HIST 151 United States History to Reconstruction (Gen. Ed. Domain III-A)**

A political, economic, social, and cultural survey of American history from the Age of Discovery to Reconstruction. The course examines the development of the United States within a global context and covers the movement of the colonies toward revolution and independence, the formulation of the Constitution, and the conflict between nationalism and sectionalism culminating in the Civil War and Reconstruction. **Note:** This course fulfills the State law requiring study of the United States and Massachusetts constitutions.

**HIST 152 United States History since Reconstruction (Gen. Ed. Domain III-A)**

A survey of the political, economic, social, and cultural developments from Reconstruction to the present. The course examines the development of the United States within a global context and covers the growth of American industry, the nation's growing international role, the Great Depression and the New Deal, the Cold War, and political changes of the late 20<sup>th</sup> century. **Note:** This course fulfills the State law requiring study of the United States and Massachusetts constitutions.

**HIST 153 Europe and the World to circa 1450 (Gen. Ed. Domain III-A)**

A survey of major cultural, intellectual, political, and socioeconomic developments from the beginnings of recorded history in the ancient Near East through the Greco-Roman and medieval periods to the mid-fifteenth century CE, including European interaction with the wider world.

**HIST 154 Europe and the World since circa 1450 (Gen. Ed. Domain III-A)**

A survey of major social, economic, cultural, intellectual, political, and scientific developments in Europe since the mid-fifteenth century, including European interaction with the wider world.

**HIST 155 The Comparative History of World Civilizations (Gen. Ed. Domain III-C)**

An examination of different world civilizations from the time of their contact with the West to the present, with an emphasis on social, economic, political, intellectual, and cultural interactions between these civilizations and the ways in which these interactions have shaped the contemporary world.

**HIST 165 Slavery, Race, and Rights in American History (Gen. Ed. Domain III-A)**

An examination of the role that racial slavery and its legacies have played in shaping America throughout its history. Topics may include: slavery and the nation's founding; abolitionism and emancipation; racial segregation; race and party politics; racially-motivated violence; institutional racism; and resistance to enslavement and racial discrimination. This course fulfills the State law requiring study of the United States and Massachusetts constitutions.

**HIST 176 Atlantic Revolutions (Gen. Ed. Domain III-A)**

An introduction to the political and social upheavals that transformed the Atlantic world in the late eighteenth and early nineteenth centuries. The "Age of Revolutions" bore witness to the American, French, and Haitian Revolutions as well as a series of Latin American wars for independence. These conflicts disrupted established economies, social hierarchies, and political orders throughout the imperial Atlantic world. Together they offer a means of exploring the causes, trajectories, limits, and consequences of the revolutionary movements that gave birth to modern democratic politics and replaced a world dominated by empires with one composed of independent states. This course fulfills the State law requiring study of the United States and Massachusetts constitutions.

**HIST 186 History of Modern Violence (Gen. Ed. Domain III-A)**

A historical exploration of how violence and our understandings of it have evolved since the late eighteenth century. Various modes of violence examined may include collective acts such as warfare, terrorism, slavery, genocide, and ethnic conflict; and interpersonal violence such as child abuse, sexual assault, and street crime. Students connect changing forms of violence to modern historical forces such as industrialization, colonialism, racism, mass politics, and social movements. The course thus provides a way of exploring how an otherwise abstract category of human behavior, violence, is embedded in and defined by its historical time and place.

**HIST 200 Quantitative History (Gen. Ed. Domain II-A)**

An introduction to the methodology historians use to compile, analyze, and interpret numerical data to answer questions about the past. This course emphasizes hands-on activities to introduce methods of quantifying historical evidence, compiling data sets, and interpreting and presenting quantitative results in relation to historical context. Historical topics addressed vary by semester but may include the transatlantic slave trade, effects of the Great Depression, trends in advertising, changing and uneven literacy rates, orphanage populations, and immigration.

Prerequisite: MATH 095 General Mathematics or satisfactory score on the mathematics placement examination.

**HIST 225 Historiography**

An introduction to the nature of history as a discipline through analysis of the approaches, methods, and interpretations of historians. *NOTE: Required of all history majors. Students should plan to take this course no later than the first semester of their sophomore year or in their first semester as a history major, if entering the major with sophomore standing or above.*

Prerequisite: one (1) 100-level history course; or permission of instructor.

**HIST 250 Historical Research and Writing**

An introduction to the methods and practice of historical research and writing. *NOTE: Required of all history majors. Students should plan to take this course in their sophomore year.*

Prerequisites: Sophomore standing, HIST 225 Historiography, and two (2) 100-level History survey courses; or permission of instructor.

***Intermediate Division Courses******AMERICAN*****HSTA 290 Special Topics Seminar in American History**

A seminar in which a small group of students engages in a special topics in history given at the discretion of the department. Topics, which vary with instructor, include emphasis on developing a critical and analytical understanding of the subject under consideration together with its relevant historiography. No more than two (2) topics courses may be used to satisfy the departmental requirements for history majors.

Prerequisite: One (1) 100-level history course.

**HSTA 302 Colonial America**

A study of the transfer of Old World cultures (especially British) to America, their interaction with the New World environment and peoples, and the subsequent evolution of distinctive political, economic, and cultural orders. Community building and related issues of gender, race, and class are emphasized.

Prerequisite: Sophomore standing and a 100-level history course, or permission of instructor.

**HSTA 304 The American Revolution**

A social, political, military, and diplomatic history of the emerging United States from 1763 to 1787. The course focuses on the causes and consequences of the War of Independence. The revolutionary nature of the period is considered within the context of the larger Atlantic world.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 306 The Early American Republic**

An examination of the early United States from the end of the Revolutionary War through approximately 1848, as Americans sought to transform the contentious legacy of the American Revolution into a functioning nation. The course focuses on the development of American politics, society, and culture, with a particular emphasis on developments in economic life, religion, race, and gender.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 308 American Civil War Era**

An intensive analysis of the social, political and economic factors in antebellum America that led to the Civil War, the war itself, and the problems of reconstructing the nation after the war.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.



**HSTA 309 Modern United States History: 1945 to the Present**

An in-depth study of the United States since 1945. Topics examined may include, the Cold War, the rights revolution, social, cultural, and political changes wrought by the Vietnam Era and Watergate, the rise of the New Right, and the disintegration of the New Deal social contract.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 310 Emergence of a Modern Nation**

A study of United States history from 1877-1920. Topics include the change in the national spirit from the Gilded Age to the rise of industrialism, imperialism, and World War I. Special emphasis is given to the dominant roles of Theodore Roosevelt, Taft, and Wilson in transforming the nation.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 313 Civil Rights Movements in the United States**

An examination of the Civil Rights Movements in the United States during the twentieth century with particular emphasis placed on the post-World War II period. Defining civil rights broadly, this class analyzes the struggles of racial/ethnic minority groups, GLBTQ, and people with physical challenges to achieve equality in American society.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 314 United States Diplomatic History**

A presentation of the evolution of America's major foreign policies. Among the factors considered in the formulation of American diplomacy are economic concerns, cultural attitudes, the role of individuals, the nation's constitutional basis, as well as foreign events.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 317 The Family in America Life**

An examination of the composition and roles of families throughout American history, including the material conditions of domestic life and their variations by period, region, class, and ethnicity. Special attention is given to how the idea of the family and the "proper" ordering of its members has contributed to cultural understandings of masculinity and femininity, childhood and adulthood, sexuality, and citizenship.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 321 Media and Communications in American History**

An examination of the historical development of American media and communications from the eighteenth century to the present. The course focuses on the business and political factors that underlay the production and circulation of information throughout American history, how Americans consumed information, and the effect it had on historical events and cultural trends. Topics covered may include: debates about the role of partisanship and objectivity in the press; the creation and operation of the post office; the rise of corporate media; and the effect of new technologies—such as the railroad, the telegraph, the television, and the internet—on American life.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 323 African-American History**

An examination of African-American history from the colonial era to the present. Topics include the rise of chattel slavery, the influence of African-Americans on the American economy, the evolution of Jim Crow, the rise of the Civil Rights Movement of the twentieth century, the effects of constitutional and legal changes, and contributions of African-Americans to American culture.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 331 Harding to Roosevelt: The United States 1920 to 1945**

An in-depth study of the interwar years and World War II. Topics examined may include cultural changes of the 1920s, labor and social unrest of the era, the Republican ascendancy, the Great Depression, New Deal, class conflict, and World War II at home and abroad.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 340 Industrial Conflict in the United States**

An examination of the conflict between workers and their employers from the early twentieth century to the present. Topics may include the emergence of working-class culture, workers' response to growing corporate power, corporate reaction to the growth of unions and their efforts to suppress workers' rights, and the roles that federal and state governments have played in the ongoing confrontation. Major strikes, employee/employer conflicts, the effects of government policies on the labor movement, and corporate strategies to maintain hegemony are examined.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 341 Total, Limited, and Cold: America at War in the 20th Century**

An examination of how wars have shaped the United States' politics, society, and economic policies during the twentieth century. From the Filipino-American War to the Persian Gulf War, America has been fighting much of the century. The concept of warfare has shifted to fit the country's changing role in world affairs, from an isolationist nation in the late nineteenth century to a Superpower after World War II.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 355 Topics in American History**

A special topic in American history to be given at the discretion of the Department. Course topic is determined by the instructor with an emphasis on developing a critical and analytical understanding of the subject under consideration, including relevant historiography. No more than two topics courses may be used to satisfy the departmental requirements for history majors. When topics courses are to be offered, the faculty member presenting the course and its subject will be announced during the prior semester. This course is not part of the Department's regular curriculum.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTA 386 Women in American History**

A study of the changing roles of women from colonial times to the present. Topics include society's stereotypes of women; women's social, family, and work roles; and the effect of legislative and constitutional changes on women.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**EUROPEAN****HSTE 290 Special Topics Seminar in European History**

A seminar in which a small group of students engages in a special topics in history given at the discretion of the department. Topics, which vary with instructor, include emphasis on developing a critical and analytical understanding of the subject under consideration together with its relevant historiography. No more than two (2) topics courses may be used to satisfy the departmental requirements for history majors.

Prerequisite: One (1) 100-level history course.

**HSTE 302 Ancient Greece: From the Homeric through the Hellenistic Age**

An examination of the history of ancient Greece. Topics include the society and thought of the Homeric period; the rise of the polis and the thought of the Archaic age; the Persian wars, the Athenian empire, Periclean Athens, the Peloponnesian wars, and the thought of the fifth century; the empire of Alexander the Great and the thought of the Hellenistic age.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 308 Ancient Rome: The Republic and the Empire**

An examination of the history of ancient Rome from the founding of the Republic to the collapse of the Empire. Topics include the evolution and decline of the Republic, its concept and institutions of government; the reign of Julius Caesar and the rise of Caesarism; the rise of Augustus and the formation of the Empire; relations of the Empire to the Christian church; the decline of the Empire; and the reigns of the emperors Diocletian, Constantine, and Theodosius. The contributions of Rome in the fields of political, constitutional, and legal thought and institutions are stressed.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 329 The Viking Age**

An examination of the political, cultural, and social history of the Scandinavian peoples of Europe circa 750 – 1100 C.E. Topics include the political impact of the Viking raids on the polities of Western and Eastern Europe, the conversion of the Scandinavians to Christianity, and the Viking settlement of Iceland, Greenland, and North America.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 349 The 1960's in Europe and the United States**

A comparative study of the era known as “The Sixties” in the United States and Europe. The course focuses on the political, cultural, and social upheaval wrought by the rise of the “New Left” and the successes/failures of the numerous social movements for civil and political rights for marginalized groups. The political and social turmoil of 1968 serves as a focal point for analyzing the period.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 355 Topics in European History**

A special topic in European history to be given at the discretion of the Department. Course topic is determined by the instructor with an emphasis on developing a critical and analytical understanding of the subject under consideration, including relevant historiography. No more than two topics courses may be used to satisfy the departmental requirements for history majors. When topics courses are to be offered, the faculty member presenting the course and its subject will be announced during the prior semester. This course is not part of the Department's regular curriculum.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 365 The History of Gender, Sexuality, and the Body**

An analysis of the history of gender, sexuality, and the body in European history. Topics covered may include religious views of gender and sexuality, sexuality and the state, the growth of sexology as an academic discipline, and the changing meanings and significance of sex and the body. In this course, students also gain an understanding of the centrality of course themes to the study of religion, the state, and the family in any historical time period.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 367 Faith and Reason in Medieval Europe**

An examination of the ideas that represent the contribution of the Middle Ages to the intellectual history of Western Europe (ca. 300-1500 C.E.), with an emphasis on religious thought. Topics may include the adoption and transformation of the classical heritage; new conceptions of sanctity, ecclesiology, and eschatology; models of just and holy war; medieval political theory; the birth of universities; and scholastic and humanist philosophies.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 370 Intellectual History of Modern Europe**

An examination of the outstanding ideologies which have appeared since the seventeenth century. Within a historical context, developments in science, political theory, philosophy, and the arts are examined. The emergence of modern psychology, sociology, and economics also receives attention. The goal is to identify and appraise the points at which various intellectual pursuits have converged and to determine how ideas are translated into actions. Among the topics considered are the origins of modern rationalism, the scientific revolution, scientific and utopian socialism, conservatism, positivism, anarchism, existentialism, and a variety of countercultural movements.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 371 Women in Europe, 1500 to 2000**

An historical examination of women's lives and ideas of gender in Europe. Through an analysis of social, economic, political, religious, intellectual, and cultural developments, this course explores how women have both experienced and shaped European history. Topics covered may include women's political action, work and the economy, religion, feminism, and family life. Student thus gain a greater understanding not only of women's lives, but also of the ways in which one can study the history of women and gender.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 372 Renaissance and Reformation Europe, 1350 to 1650**

A history of Europe from 1350 to 1650, with particular emphasis on the many faceted change-over from medieval to modern during this period: the decline of the papacy, the growth of the Italian Renaissance, Anglo-French rivalry, the rise of Spain, the Reformation, and the growth of modern science.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 376 History of Modern France**

A study of the political, social, economic, and intellectual development of France since 1789. Particular emphasis is on the Revolution, Napoleon, the political experiments of the nineteenth century, the psychological collapse of the French in the first half of the twentieth century, the rise of Charles DeGaulle, and present day issues.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 377 History of Medicine and Society in the West – From the Ancient World to Present**

A historical examination of health, illness, and disease in the West. The course addresses innovations in medical practice, the ways in which practitioners have both conceived of and treated patients, and patients' experience with health care. The course situates the history of medicine within the context of developments in the realm of science and technology.

Prerequisites: Sophomore standing and HIST 154 Europe and the World since circa 1450; or permission of instructor.

**HSTE 378 Modern Britain**

The socio-economic, cultural, and political history of Britain from the seventeenth century to the present. Lectures and readings deal with such topics as Stuart and Georgian England, industrialization, Parliamentary reform, party politics, and the disintegration of the Empire.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 380 Blood, Iron, and Republics: Germany from 1866 to the Present**

A study of the German state from its unification to the present. Among the topics explored are the following: the general condition of the various German states during the seventeenth and eighteenth centuries, the rise of Prussia, the impact of the Napoleonic conquest, the Revolution of 1848, Bismarck and the formation of the German Empire, the First World War, the failure of the Weimar Republic, Hitler's regime, and the era of the two Germanies. Attention is also given to culture, society, and the economy. **Note:** Credit will not be given for both this course and HSTE 380 Modern Germany.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 381 Remaking Europe: History, Politics, and Culture Since World War II**

An examination of European history since the end of World War II. In this course students analyze how the politics, culture and society of both Western and Eastern Europe have been transformed since 1945. Topics covered may include the Cold War, decolonization, the emergence of the European Union, the fall of communism, and migration. Special focus is placed on European identities and how they have changed since 1945.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 382 Empires in Collision: Southeastern Europe, 1683 to the Present**

A study of the Balkan-Anatolian unit since 1683. Emphasis is placed upon the emergence of the Balkan national states, the evolution of native cultures, problems of ethnicity, class, and gender, the involvement of such great powers as Austria and Russia in the region, and the profound changes since World War II. **Note:** Credit will not be given for both this course and HIST 382 The Modern Balkan World.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 385 Portraits in European/World History**

A biographical examination of the rise and development of significant individuals in their respective countries or civilizations. This course considers the relationship between these individuals and events to determine their influence in the development of history.

Specific individuals vary by semester.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 386 Revolutionary France (1750-1815)**

A study of the political, intellectual, social, and economic changes France experienced during its Revolutionary Era, 1750-1815. Paying close attention to the debates that French Revolutionaries engaged in concerning "human rights", the course focuses on the origins and events of the French Revolution through the Napoleonic Era. Special emphasis is placed on the ways in which rights of citizenship were extended (or not), depending on one's race, class, gender, ethnicity, and sexual identity.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 388 The Path to Modernity: Russia from 1682 to the Present**

A broad exploration of imperial, Soviet, and post-Soviet periods. Among the topics stressed are the Rurican, Byzantine, and Muscovite formative influences of the Pre-Petrine era; the modernization of Russia under Peter I and his successors; the growth and development of the intelligentsia during the nineteenth century; the revolutions of 1905 and 1917; the emergence and dissolution of the USSR; and developments within the post-Communist epoch. **Note:** Credit will not be given for both this course and HIST 388 Russia: From 1689 to the Present.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTE 394 The History of Late Antiquity**

An examination of one of the most dynamic and transformative periods in world history. Topics include the Christianization of the Mediterranean world, the disappearance of Roman imperial rule in the West and the emergence of post-Roman kingdoms, Byzantine politics and society, the rise and spread of Islam, and the return of imperial rule in Western Europe under Charlemagne.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**WORLD****HSTW 290 Special Topics Seminar in World History**

A seminar in which a small group of students engages in a special topics in history given at the discretion of the department. Topics, which vary with instructor, include emphasis on developing a critical and analytical understanding of the subject under consideration together with its relevant historiography. No more than two (2) topics courses may be used to satisfy the departmental requirements for history majors.

Prerequisite: One (1) 100-level history course.

**HSTW 301 Native American History, 1500-1800**

An exploration of the history of the indigenous peoples of the Americas from first contact to the Age of Revolutions. The course focuses on native cultures of North and South America, the consequences of contact with European explorers and settlers, and the accommodation and resistance of native peoples as the Americas became sites of struggle among European imperial powers.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 318 The First World War: Conflict, Culture, and Society**

An introduction to the military, social, and cultural history of one of the defining conflicts of the modern era. The course examines societies and military theaters in Europe and the Middle East during the First World War and addresses United States involvement in the conflict. Special focus is placed on major issues raised by the war, including violence against noncombatants, changing gender relations, the collapse of major empires, and the contentious politics and cultures of war remembrance.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 321 European and American Muslims: A History**

A study of Muslim communities that have constituted integral parts of European and American life for centuries, while often construed as outsiders to it. Major cases to be explored may include al-Andalus and the Reconquista, the Ottoman Empire and its successor states in the Balkans, immigrant communities in 20<sup>th</sup>-century Western Europe, and the role of Islam and Muslims in America from the Revolutionary era to the present.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 337 Caribbean History**

An examination of the history of the Caribbean islands from European conquest to the present. Topics may include conquest, colonization, and cultural exchange; piracy, smuggling, and trade; slavery and plantation growth; the Haitian Revolution; slave emancipation; industrial development and decolonization; the Cuban Revolution; and the enduring effects of imperialism on the region.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 345 Networks and Empires – Economic History of the Atlantic World**

An exploration of the economic, business, and social history of the Atlantic world from 1450-1800. The course examines developments in Europe, Africa, and the Americas, with special attention to the interactions and competition among the British, French, Spanish, Portuguese, and Dutch empires. Topics may include: the economic ideologies that underlay European imperial expansion, technologies of transportation and communication, the economics of slavery, trading encounters with Native peoples, the impact of piracy and illicit trade, and changing ideas about consumption.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 356 Holocaust and Genocide in the 20<sup>th</sup> Century**

An examination of the systematic persecution and genocide of ethnic minorities throughout the 20<sup>th</sup> century. The primary focus is on the Nazi-led Holocaust of European Jews, Roma, and other minority groups between 1933 and 1945. Comparisons are made to other genocides, such as those involving the Armenians, Bosnians, and Rwandans. Special attention is given to the themes of active and passive resistance and collaboration, as well as memory and memorialization.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 359 Slavery and Abolition**

An exploration of the history of slavery and abolition in different parts of the world with a particular focus on the period from the sixteenth century to the present. Students will examine the different forms of slavery and the nature and dynamics of slave life with an emphasis on analyzing power relationships in slave societies and how and why such societies changed through time. Topics to be studied may include: slave trading; slave labor and culture; gender and slavery; slave resistance and rebellion; race, ethnicity, and identity; abolitionism and slave emancipation; and modern slavery.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 369 History of the Crusades**

An examination of the Crusades, an experiment in religious warfare that stretched from the eleventh century to the Protestant Reformation. Topics include the development of theories of Holy War in Christianity and Islam, the motivations of those who fought on both sides of this lengthy conflict, and the long-term implications of the Crusades for relations between the adherents of Judaism, Christianity, and Islam. The course emphasizes the place of the Crusades within the wider context of European and Near Eastern History.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 383 Making of Modern Middle East**

An examination of social, economic, and political developments in the Middle East since circa A.D. 1500. The course covers the rise and fall of the Ottoman and other "Gunpowder" Empires, the expansion of European influence and control, nationalist and socio-religious responses to the West, and the Arab-Israeli conflict.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**HSTW 392 Africa and the World**

An examination of the African continent's relationship with the larger world since antiquity, with particular emphasis on the period since circa A.D. 1500. Topics to be discussed include the relationship between geography and human development, indigenous state formation, the colonial experience and decolonization, and the processes and consequences of sub-Saharan Africa's incorporation into the capitalist world economy.

Prerequisite: Sophomore standing and one 100-level history course, or permission of instructor.

**Upper Division Courses****HIST 450 Seminar in History**

A course in which a small group of students engages in advanced study and original research under the direction of a member of the faculty. In addition to their individual research projects, the students may be expected to produce and to discuss such assignments as book reviews and bibliographic essays. The course is open only to students who are junior, senior, or post-graduate history majors. No transfer course can fulfill this seminar requirement. Topics vary with the instructor, and are announced for a two-year period. Students may take the Seminar multiple times for 300-level credit. However, in no case may a student take two seminars on the same topic.

Prerequisites: HIST 250 Historical Research and Writing, and three (3) 300-level history courses; or permission of instructor.

**HIST 490 Independent Study in History**

An opportunity for a student to work independently with a faculty member on a mutually-agreed upon topic. To enroll in an independent study, a student must determine the topic of study in consultation with the faculty member under whose supervision the independent study is to be conducted and have it approved in writing by both the faculty supervisor and the department chair. An independent study counts as one (1) course-credit. A student may enroll in only one (1) independent study in a given semester. History majors may take no more than two (2) independent studies as part of the intermediate-division courses required for the History major. History minors may use no more than one (1) independent study towards completion of the History minor.

Prerequisites: History major or minor with junior or senior standing; minimum GPA of 2.75 overall and 3.00 in history courses; and completion of at least three (3) courses in history.

**HIST 495 Internship in History**

A supervised internship experience offered in cooperation with participating agencies, institutions, organizations, or individuals who agree to provide professional guidance for student-interns. A minimum of 140 on-site hours are required per course credit, with a maximum of two (2) course credits applying towards the history major and a maximum of two (2) additional course credits possible as free electives. Students interested in an internship should consult with their advisor and the Chair of the History Department.

Prerequisites: Junior or senior history major or minor; GPA of no less than 2.50 in history courses; and approval of the Chair of the History Department and a faculty coordinator.

# Interdisciplinary Majors, Minors, and Courses

## **BUSINESS AND INFORMATION TECHNOLOGY MAJOR (UITB) (Home Department - Business)**

This major is a collaboration with the Business and Computer Science departments and provides students with knowledge in both the business and information technology fields. The intent of this program is to prepare the Business and Information Technology program can “bridge the gap” between technology and business. As entry level workers, they are likely to qualify for jobs as systems analysts, Project Management Office administrators, technical trainers, quality assurance analysts and similar roles. As experienced workers, they are likely to move into Project Management, Delivery Assurance and IT Management roles.

### **Required Business core courses (13):**

ACCT	220	Introduction to Financial Accounting
ACCT	221	Introduction to Managerial Accounting
BUIS	398	Projects in Information Systems
BUIS	477	Management Issues in Information
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
FINA	330	Managerial Finance I
MGMT	215	Legal Environment of Business
MGMT	280	Organizational Behavior
MGMT	372	Operations and Project Management
MRKT	271	Marketing Principles
QUAN	201	Quantitative Modeling for Business and Economics
QUAN	202	Statistical Analysis for Business and Economics

### **Required Computer Science core courses (6):**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	120	Introduction to Information Technology
CSCI	130	Introduction to Programming
CSCI	258	Introduction to Operating Systems Using UNIX
CSCI	360	Database Management
CSCI	376	Networking Technologies

### **Required Mathematics course (1):**

MATH	123	College Algebra*
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*\*Students with a score on the mathematics placement exam which allows them to take MATH 200 Precalculus may substitute MATH 200 Precalculus, MATH 215 Finite Mathematics, or MATH 219 Calculus I for MATH123 College Algebra.*



## **ENVIRONMENTAL SCIENCE AND POLICY MAJOR (UEVG) (Home Department - Geography)**

This major is a collaboration with the Geography and Biology departments and is designed to provide the interdisciplinary background necessary for an environmental professional today. It combines a strong foundation in science, emphasizing biology, with broad training in geographical theory and techniques. This interdisciplinary training is necessary to create and implement environmental policy. This program will prepare students to solve complex multidisciplinary problems and to communicate effectively with the scientific community and the general public. Graduates with this major will be prepared to successfully obtain positions with consulting firms, governmental agencies, private corporations, and non-profit organizations. They will be prepared for work as environmental analysts, town wetlands administrators, environmental educators, or environmental scientists. They will also be prepared to pursue graduate studies in Environmental Science, Conservation Biology, Resource Management, Environmental Planning, Environmental Engineering, Environmental Law, and Environmental Education. Graduates who choose not to pursue careers in Environmental Science will be well prepared for any career that requires a strong science background emphasizing data analysis, critical thinking, integration of complex information, spatial interpretation skills, effective communication and problem resolution skills.

### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Science) requirement is satisfied through the completion of the Environmental Science major.

### **Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### **Required Core courses (13):**

BIOL	130	Principles of Biology (Gen.Ed. Domain II-B & Lab)
BIOL	251	Vascular Plant Taxonomy
BIOL	248	Principles of Ecology
CHEM	103	Introductory Chemistry* (Gen.Ed. Domain II-B, Lab)
CHEM	201	Introductory Organic Chemistry and Biochemistry
ECON	102	Principles of Microeconomics (Gen.Ed. Domain III-B)
GEOL	231	Physical Geology (Gen.Ed. Domain II-B, Lab)
GEOG	216	Introduction to Geographical Information Systems
GEOG	235	Environmental Law and Policy
GEOG	375	Resource Management
ENVS	101	Introduction to Environmental Science
ENVS	202	Data Analysis for Scientists
ENVS	451	Senior Thesis in Environmental Science I (0.5 course-credit)
ENVS	452	Senior Thesis in Environmental Science II (0.5 course-credit)

### **Restricted Electives (Six (6) courses):**

#### *Science -*

#### **Choose two (2) courses:**

BIOL	211	Biology of the Reptilia
BIOL	232	Invertebrate Zoology

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BIOL	335	Wildlife Biology
BIOL	336	Ornithology
BIOL	341	Marine Biology
BIOL	391	Principles of Tropical Ecology and Conservation: Field Study
EASC	241	Introduction to Meteorology (Gen.Ed. Domain II-B)
EASC	246	Oceanography (Gen.Ed. Domain II-B)
GEOL	233	Environmental Geology
PHYS	201	Introductory Physics (Gen.Ed. Domain II-B, Lab)

**Policy and Planning -****Choose three (3) courses:**

ANTH	161	Cultural Anthropology (Gen.Ed. Domain III-B)
GEOG	135	Introduction to Environmental Studies
GEOG	212	Geographical Perspectives on the Global Environment
GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	225	Population, Food, and Global Development
GEOG	230	Geography of Natural and Man-Made Hazards
GEOG	240	Municipal Land Use
GEOG	272	Site Planning
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing
GEOG	339	Methods for Planning Analysis & Plan Making
PHIL	234	Environmental Ethics
POSC	223	Bureaucratic Politics and Power
POCS	250	American Legal Systems
POSC	329	Public Policy Analysis

**Communication -****Choose one (1) course:**

COMM	107	Effective Speaking (Gen.Ed. Domain I-A)
COMM	115	Introduction to Speech Communication
COMM	328	Argumentation and Advocacy
ENGL	225	Introduction to Journalism
ENGL	372	Technical Writing

\*Students may elect to take CHEM 107 Principles of Chemistry and CHEM 108 Principles of Chemistry and Quantitative Analysis. Students choosing this option must take CHEM 207 Organic Chemistry I as a Restricted Elective in the Science area.

**GLOBAL STUDIES MAJOR (U\_GS)**

The Global Studies major is an interdisciplinary baccalaureate program grounded in a strong liberal arts curriculum. This program is based on three important principles:

- (1) globalization affects us all, whether we remain local or look to other parts of the world;
- (2) the connections between the local and global are not limited to one domain of life, but involve equally identities, economies, politics, environments, societies and cultures; and
- (3) students gain from international, cross-cultural perspectives and experiences.

Students learn the historical causes and current process of globalization from an interdisciplinary foundation. They are given the tools to understand global relationships and learn about ways to introduce effective change in issues of global importance. The global studies major emphasizes a flexible structure, allowing students to share in the design of their major and to respond to emergent opportunities at the University and abroad. Experiential learning is stressed: students must study abroad for one semester and are encouraged to take internships and other service learning opportunities.

**The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-C (Global Competency, Ethical reasoning, and/or Human Diversity) requirement is satisfied through the completion of the Global Studies major.

**Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

**Requirements for Major in Global Studies (UGSG)****Three (3) core Global Studies courses:**

GLST	101	Introduction to Global Studies
GLST	201	Research Methods: Case Studies in Globalization
GLST	401	Global Studies Seminar

*The core courses must be taken at Framingham State University.*

**Three (3) of the following seven (7) interdisciplinary elective courses:**

ANTH	207	Global Issues in Anthropology*
ECON	200	Economics of Globalization
ENGL	203	Contemporary Global Literature*
GEOG	222	Geographic Perspectives on Globalization
HIST	155	Comparative World History Since 1500
POSC	220	The Politics of Globalization
SOCI	357	Sociological Perspectives on Globalization*

**Required international experience component (4):**

Students must take at least one (1) semester of study abroad. It is strongly recommended that the study abroad be taken during junior year. The study abroad program should align with the student's concentration. Classes taken abroad can count as interdisciplinary electives or restricted electives with the program director's approval. Under exceptional circumstances (to be determined by the Program Coordinator) a student may opt to conduct an

intensive internship program abroad or within the United States at an appropriate organization.

### Language related requirement (2):

At least two (2) 200-level or above language classes. This requirement is waived if the student completes a minor in Chinese, French, or Spanish.

### Restricted electives (4):

Students design their own area of focus upon acceptance into the major in consultation with the Program Chair who must approve all course selections. Students take four (4) courses from the following list of approved courses for the major. At least two (2) courses must be at the 300 level or above. The courses are grouped into suggested areas organized around themes or regions. Students are encouraged to combine thematic and regional areas.

### Suggested Areas of Focus:

Students majoring in Sociology may elect to follow an area of focus within the major. An area of focus is not the same as a concentration and will not be noted on a student's transcript or audit. A cohesive sequence of courses in a subfield of the discipline enables students to strengthen their knowledge for employment opportunities upon graduation and/or advanced post-graduate training. Students interested in pursuing an area of focus are encouraged to choose their major electives from the courses listed below:

#### *Thematic focus*

#### **Global identities**

ANTH 243	Native American Cultures
ANTH 253	Gender Across Cultures
ANTH 258	Critical Approaches to Men and Masculinities
ANTH 360	Language and Culture
ARTH 285	The Art of Asia
ENGL 234	Global Cinema
ENGL 277	Contemporary World Literature by Women
ENGL 326	The Novel and the World
ENGL 361	Postcolonial Literature
ENGL 398	Studies in World Literature after 1900
GEOG 211	Cultural geography
HSTA 301	Native American History, 1500-1800
HSTE 359	Slavery and Abolition
HSTW 321	European and American Muslims: A History
SOCI 245	Race and Ethnic Relations

#### **Global development, environment and sustainability**

ANTH 253	Gender Across Cultures
BIOL 103	Ecological Implications of Conservation
BIOL 200	Introduction to Environmental Science
BIOL 203	Plants and Society
ECON 333	Environmental Economics

GEOG	135	Introduction to Environmental Studies
GEOG	165	Global Cities
GEOG	201	Economic Geography
GEOG	206	Political Geography
GEOG	212	Geographic Perspectives on the Global Environment
GEOG	225	Population, Food, and Global Development
GEOG	235	Environmental Law and Policy
GEOG	460	Global Development Theories and Policies
PHIL	234	Environmental Ethics

**Globalization, justice and human rights**

GEOG	180	Native Americans: A Geographical and Legal Perspective
GEOG	225	Population, Food, and Global Development
HSTE	356	Holocaust and Genocide in the 20 <sup>th</sup> Century
PHIL	102	Introduction to Ethics: Why Be Moral?
PHIL	222	Bioethics
POSC	120	Introduction to World Politics
POSC	211	Political Theory: Justice, Law, and Order
POSC	269	Building Peace After Conflict
SOCI	225	Genocide and Violence: Sociological Perspectives
SOCI	230	Law and Society
SOCI	288	Immigration in the United States

**International Political Economy**

ECON	101	Principles of Macroeconomics
ECON	220	Health Economics
ECON	230	Urban Economics
ECON	333	Environmental Economics
ECON	410	International Trade
GEOG	201	Economic Geography
GEOG	206	Political Geography
HSTW	345	Networks and Empires: Economic History of the Atlantic World
MRKT	318	International Marketing
NUTR	262	Food, Culture, and Society
POSC	120	Introduction to World Politics
POSC	260	Comparative Political Systems

*Regional focus***China**

CHIN	118	Chinese Writing System and Calligraphy
CHIN	203	Chinese Culture through Films

CHIN	222	Chinese Literature in English Translation
CHIN	326	Contemporary Trends in the Sinophone World
CHIN	405	Chinese Language through Media
CHIN	438	Topics in Chinese Language and Culture
GEOG	254	Geography of Monsoon Asia
HIST	149	Twentieth Century China

**Latin America/Hispanic Studies**

ANTH	313	South American Archaeology
GEOG	257	Geography of Latin America
HSTW	337	Caribbean History
SPAN	334	Spanish American Culture and Civilization
POSC	365	Latin American Politics

**Europe and Russia**

GEOG	252	Geography of Europe
GEOG	253	Geography of Russia and the Former Soviet Republics
HSTE	349	The 1960s In Europe and American
HSTE	381	Remaking Europe: History, Politics, and Culture Since World War II
HSTW	369	History of the Crusades
FREN	303	French Culture and Civilization
FREN	305	Contemporary Trends in the French-Speaking World
SPAN	333	Spanish Culture and Civilization

**Africa and the Middle East**

GEOG	255	Geography of Sub-Saharan Africa
GEOG	256	Geography of the Middle East

*Additional approved courses:*

Approved study tour from any participating department.

Approved independent study from any participating department.

Approved internship from any participating department.

**LIBERAL STUDIES MAJOR**

The Bachelor of Arts, with a Major in Liberal Studies is intended as an opportunity to enable students, under faculty-advisor guidance, to design a unique program of study not readily available within the existing curricular structure of the University. This major aims at providing alternative avenues for accommodating the individual academic interest of students. A student may either (a) pursue in-depth study in an area or areas not presently offered as majors at Framingham State University or (b) may choose a broad spectrum of course work among a number of disciplines in lieu of the traditional one-discipline course of study.

Students in this major have the opportunity to experience a broad course of study in the traditional liberal arts and sciences which fosters skills such as conceptual analysis, critical thinking, disciplined writing, creative problem-solving, ethical and moral reasoning, and strong leadership.

## Prior Learning Assessment

Students accepted into the Liberal Studies major may choose to apply for **Prior Learning Assessment** credit (a maximum of eight (8) course-credits). Such credit is awarded through a portfolio assessment process and may be granted for substantive learning that has occurred outside the classroom following high school graduation or completion of the GED.

Credit may be awarded in the following areas:

- Employment
- Community Service
- Independent Learning
- Military Service
- Noncredit Educational Experiences
- Educational Travel

Students who wish to apply for "Prior Learning Assessment" credit must complete the portfolio process within twelve months of matriculation into the Liberal Studies major. "Prior Learning Assessment" credits are only applicable to the Liberal Studies major at Framingham State University (these credits will be removed from the student's academic record should the student change their major).

Students seeking certification for certain professional programs (e.g. teacher or dietetic licensure) should consult an advisor, as the Liberal Studies major may not be an appropriate route to those professions.

For additional information regarding the Liberal Studies major, please contact the Liberal Studies coordinator to make an appointment.

### Degree Requirements for the Major in Liberal Studies:

- Eleven (11) General Education course-credits including one laboratory science.
- Eleven (11) Open Elective course-credits. A maximum of eight (8) course-credits may be applied toward open electives from "Prior Learning Assessment" course-credits.
- A minimum cumulative grade point average (GPA) of 2.00 in the major as well as an overall GPA of 2.00 is required in order to graduate.
- Residency requirements: A minimum of eight (8) course-credits post-matriculation must be taken at the University to complete residency requirements for the degree.
- A minimum of five (5) course-credits post-matriculation must be taken in the concentration, to include two (2) advanced level (300-400) concentration course-credits along with LIBS 450 Seminar in Liberal Studies.

### Major Requirements (10 Course-Credits)

#### Two (2) Major Core Requirements:

LIBS 250 Introduction to Research Methods

LIBS 450 Seminar in Liberal Studies

#### Concentration in General Studies (ULIG) (8 courses):

Eight (8) concentration courses from at least two (2) but no more than three (3) major academic departments. A total of five (5) course-credits from at least two (2) academic departments must be completed at the advanced level (300-400), two (2) of which must be taken at FSU post-matriculation.

#### Concentration in Individualized Studies (ULIS) (8 courses):

Eight (8) concentration courses, of which a minimum of five (5) course credits must be completed at the advanced level (300-400). Students must submit an academic plan listing the eight (8) concentration courses for approval to the Liberal Studies Advisory

Group prior to starting the desired program. Any changes from the approved academic plan must be submitted to the Liberal Studies Advisory Group for approval prior to enrolling in the course(s).

For additional information regarding the Liberal Studies major, please contact Dr. Kelly Matthews, Liberal Studies Coordinator in the Day Division or Dr. P. Bradley Nutting, Liberal Studies Coordinator in the Department of Continuing Education.

## INTERDEPARTMENTAL MINORS

An Interdepartmental Minor shall consist of a designated number of courses, which must be taken in at least three different subject areas. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University post-matriculation.

The University offers minors in the following areas:

**AMERICAN STUDIES**

**LATIN AMERICAN STUDIES**

**DIVERSITY STUDIES**

**MUSEUM STUDIES**

**GENDER STUDIES**

**NEUROSCIENCE**

**INFORMATION TECHNOLOGY**

**SCIENCE COMMUNICATION**

A description and course requirements of each Interdepartmental Minor can be viewed in the Interdisciplinary section of this catalog as well as under the academic departments sponsoring the minor. *\*Note: To complete a minor, a minimum of three (3) course credits (12 semester hours) in the minor must be taken at Framingham State University.*

### MINOR IN AMERICAN STUDIES (AMS) (5 COURSES)

To earn an American Studies minor, students must apply in writing to the Chair of either the English or History Department and have a sequence of courses designed and approved to meet specific goals. Applications are available in either Chair's office. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**The minor in American Studies requires five (5) courses representing at least three (3) disciplines, distributed as follows:**

A. One (1) of the following courses in American literature:

ENGL 243	The American Short Story
ENGL 245	The American Novel
ENGL 261	American Writers I
ENGL 262	American Writers II

B. One (1) of the following courses in American history:

HSTA 326	Women in American History
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C. A total of three (3) courses from at least two of the following disciplines: *(At least three disciplines must be represented in the total of five courses.)*

#### **Art & Music**

ARTH 282	American Art
MUSC 141	American Musics
MUSC 151	The History and Literature of Jazz



**Biology**

BIOL 103 Biological Perspectives on Environmental Issues

**Economics**

ECON 101 Principles of Macroeconomics

ECON 102 Principles of Microeconomics

ECON 230 Urban Economics

**English**

ENGL 243 The American Short Story

ENGL 245 The American Novel

ENGL 260 American Ethnic Literature

ENGL 261 American Writers I

ENGL 262 American Writers II

ENGL 353 Whitman, Dickinson, and Frost

**Geography**

GEOG 251 Geography of New England

**History**

HIST 151 United States History to Reconstruction

HIST 152 United States History since Reconstruction

HSTA 308 American Civil War Era

HSTA 310 Emergence of a Modern Nation

**Sociology**

SOCI 130 Social Problems

SOCI 251 Cities and Communities

SOCI 267 Sociology of Subcultures

SOCI 315 Social Class

SOCI 340 Sociology of Work

**Interdisciplinary/Interdepartmental:**

INTD 490 Independent Study in American Studies

**MINOR IN DIVERSITY STUDIES (DVS) (5 COURSES)**

To earn a Diversity Studies minor, students must apply in writing to the Chair of the English, History, or Sociology Department. To complete the minor, no more than two (2) courses may be taken in a single department. No more than three (3) 100-level courses may be included in the minor. No course may fulfill both major and minor requirements but courses in the minor may be used to fulfill general education requirements. At the discretion of the Chair of the English, History, or Sociology Department, some of the courses\* taken for undergraduate credit as part of study abroad programs may be used to complete the Diversity Minor. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**The minor requires five (5) courses from the following list:*****Art & Music:***

ARTH	200	Art and Social Values
ARTH	285	The Art of Asia
ARTH	288	Latin American Art
MUSC	171	World Music Cultures
MUSC	212	Music, Dance, and Ritual in the Pacific
MUSC	220	Women in Music

***Communication Arts:***

COMM	234	Intercultural Communication
COMM	245	Cultural Aspects of Media Representation

***English:***

ENGL	201	Mythology and Folklore
ENGL	202	Comparative Mythology
ENGL	203	Contemporary Global Literature
ENGL	234	Global Cinema
ENGL	250	Literature and Gender
ENGL	260	American Ethnic Literature
ENGL	264	African American Literature
ENGL	277	Contemporary World Literature by Women

***Fashion Design and Retailing:***

FASH	253	Cultural Dress
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***Food and Nutrition:***

NUTR	262	Food, Culture, and Society
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***Geography:***

GEOG	110	World Regional Geography
GEOG	180	Native Americans: A Geographical and Legal Perspective
GEOG	254	Geography of Monsoon Asia
GEOG	255	Geography of Sub-Saharan Africa
GEOG	256	Geography of the Middle East
GEOG	257	Geography of Latin America
GEOG	290	Non-Western Regional Geography: Field Study

***History:***

HIST	155	Comparative History of World Civilizations
HSTA	323	African-American History
HSTA	386	Women in American History
HSTA	340	Industrial Conflict in the United States
HSTE	365	The History of Gender, Sexuality, and the Body
HSTE	371	Women in Europe, 1500-2000

***Psychology and Philosophy:***

PSYC	212	Adolescent Psychology
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**Interdisciplinary**

PSYC	224	Social Psychology
PSYC	231	Psychology of Adulthood and Aging
PSYC	286	Psychology of Women
PSYC	340	Cultural Psychology
PSYC	369	Human Sexuality

**Sociology:**

ANTH	161	Cultural Anthropology
ANTH	172	Interpreting the Past: Archaeological Perspectives
ANTH	207	Global Issues in Anthropology
ANTH	243	Native American Cultures
ANTH	258	Critical Approaches to Men and Masculinities
ANTH	290	Non-Western Cultural Studies Tour
ANTH	360	Language and Culture
ANTH	370	Psychological Anthropology
SOCI	101	Introduction to Sociology
SOCI	130	Social Problems
SOCI	212	Sociology of the Family
SOCI	218	Women in Society
SOCI	220	Sport in Society
SOCI	245	Race and Ethnic Relations
SOCI	253	Gender Across Cultures
SOCI	256	Religion and Ritual
SOCI	263	Social Inequality
SOCI	267	Sociology of Subcultures
SOCI	280	Aging in Society
SOCI	312	Sociology of Childhood and Adolescence
SOCI	315	Social Class
SOCI	325	Health and Illness
SOCI	329	Social Deviance
SOCI	333	Society and the Mentally Ill
SOCI	340	Sociology of Work
SOCI	369	Sex/Sexualities in Society

**World Languages:**

FREN	201	Intermediate French I
FREN	202	Intermediate French II
FREN	301	Advanced French Composition & Conversation I
FREN	302	Advanced French Composition & Conversation II
FREN	303	French Culture and Civilization
FREN	305	Contemporary Trends in the French-Speaking World
FREN	306	Major French Writers I
FREN	307	Major French Writers II

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LING	110	The Languages of the World
SPAN	201	Intermediate Spanish I
SPAN	202	Intermediate Spanish II
SPAN	301	Advanced Spanish Composition & Conversation I
SPAN	302	Advanced Spanish Composition & Conversation II
SPAN	333	Spanish Culture and Civilization
SPAN	334	Spanish American Culture and Civilization
SPAN	335	Major Hispanic Writers I
SPAN	336	Major Hispanic Writers II
SPAN	343	The Latin American Short Story: Love, Death, and Humor*

### **MINOR IN GENDER STUDIES (GTS) (5 COURSES)**

To earn a Gender Studies minor, students must apply in writing to the Chair of either the English, History, or Sociology Department. To complete the minor, no more than two (2) courses may be taken in a single department. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**The minor requires five (5) courses as follows:**

**One (1) required courses:**

SOCI 253 Gender Across Cultures

**Four (4) electives from the following list:**

#### *Art & Music*

MUSC 220 Women in Music

#### *English*

ENGL 250 Literature and Gender

ENGL 277 Contemporary World Literature by Women

#### *History*

HSTA 386 Women in American History

HSTE 365 The History of Gender, Sexuality, and the Body

HSTE 371 Women in Europe, 1500 to 2000

#### *Psychology*

PSYC 286 Psychology of Women

PSYC 369 Human Sexuality

#### *Sociology*

ANTH 258 Critical Approaches to Men and Masculinities

SOCI 218 Women in Society

SOCI 369 Sex/Sexualities in Society

**MINOR IN INFORMATION TECHNOLOGY (ITS) (5 COURSES)**

To earn a minor in Information Technology, students must apply in writing to the Chair of the Computer Science Department. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**The minor requires five (5) courses as follows:****Three (3) required courses:**

BUIS	200	Introduction to Business Systems
CSCI	120	Introduction to Information Technology (Gen.Ed. Domain II-A)
CSCI	140	Introduction to the Internet, Graphics, and Multimedia

**Two (2) electives from the following list:****Communication Arts:**

COMM	200	Design for Integrated Media
COMM	225	Interactive Design
COMM	316	Advanced Multimedia
COMM	327	Computer Animation Techniques

**Computer Science:**

CSCI	108	HTML, JavaScript Programming, and Web Site Development
CSCI	130	Introduction to Programming (Gen.Ed. Domain II-A)
CSCI	215	Computer Science II Using Java
CSCI	258	Introduction to Operating Systems using UNIX
CSCI	306	Introduction to Visual Basic
CSCI	320	Windows Server and Client Management
CSCI	345	Computer and Network Security

**Geography:**

GEOG	214	Spatial Analysis Using Geographic Information Systems
GEOG	216	Introduction to Geographic Information Systems
GEOG	316	Advanced Geographic Information Systems
GEOG	328	Introduction to Remote Sensing

**Mathematics:**

MATH	117	Introduction to Statistics (Gen.Ed. Domain II-A) OR
		MATH 208 Biostatistics
MATH	307	Intermediate Statistics

**MINOR IN LATIN AMERICAN STUDIES (LAS) (5 COURSES)**

Students interested in this minor program must apply to the Chairs of either the Geography, History, or World Languages Departments. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**The minor requires five (5) courses as follows:**

**Four (4) Required courses:**

GEOG	257	Geography of Latin America
HIST	337	Caribbean History
SPAN	332	Advanced Spanish Composition and Conversation II or the equivalent
SPAN	334	Spanish-American Culture and Civilization

**One (1) Elective Course from the following:**

HIST	314	United States Diplomatic History
SPAN	435	The Boom in Latin-American Literature
SPAN	432	Contemporary Trends in Spanish-American Thought

**MINOR IN MUSEUM STUDIES (MST) (7 COURSES)**

This interdepartmental minor requires that students take a minimum of five (5) courses outside of their major department. Students are strongly encouraged to complete a museum internship to complement the minor. Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

*The minor requires five (5) to seven (7) courses as follows:*

**One (1) Required course:**

INTD	371	Museum Studies
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**Choose two (2) of the following:**

ANTH	172	Interpreting the Past: Archaeological Perspectives
FASH	223	History of Costume
FASH	253	Cultural Dress
FASH	278	History of Furniture
FASH	347	History of Textiles

**Choose two (2) of the following:**

ARTH	200	Art and Social Values
ARTH	272	History of Art II
ARTH	282	American Art
INTD	381	Museum Seminar

**Choose two (2) of the following:**

HIST	154	Western Civilization since the Renaissance
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One (1) 300-level history course approved by the History Department Chair

**MINOR IN NEUROSCIENCE (NEU) (5 COURSES)**

Neuroscience is the study of the nervous system, the cells and tissues of which it consists; the thoughts, emotions and behaviors that it manifests and the way it changes due to stimuli from both inside and outside the body. It is an interdisciplinary science that combines aspects of Biology, Psychology, Philosophy, and Chemistry. Neuroscientists examine the development, structure and function of the nervous system, what happens in disease states and mental illness and how different compounds can alter its activity.

Students interested in a minor in Neuroscience should see the chair of either the Biology Department or Psychology and Philosophy Department.

Only one (1) course may be taken within the student's major subject area. Courses in the minor may also be used to fulfill general education requirements. To complete the course residency requirement for a minor, a minimum of three (3) course-credits (12 semester hours) in the minor must be taken at Framingham State University.

**Four (4) Required Courses:**

BIOL	142	Introduction to Human Biology (Domain II-B, Lab) <b><u>or</u></b>
PSYC	101	General Psychology (Domain III-B)

*NOTE: Student who are not Biology or Psychology majors must take both courses.*

NEUR	225	Biopsychology*
PHIL	222	Bioethics (Domain III-C)
PSYC	263	Cognitive Psychology* <b><u>or</u></b>
BIOL	325	Neurobiology*

**One (1) Elective Courses:**

*From the following list:*

BIOL	320	Animal Behavior
BIOL	417	Endocrinology
NEUR	348	Cognitive Neuropsychology
NEUR	380	Neuropharmacology
NEUR	490	Independent Study in Neuroscience
NEUR	495	Internship in Neuroscience
PSYC	245	Health Psychology
PSYC	280	Sensation & Perception

**MINOR IN SCIENCE COMMUNICATION (SCM) (5 COURSES)**

To declare a Science Communication minor, students must complete the appropriate form and obtain the signature of one of the following department chairs: Communication Arts, English, or Physics and Earth Sciences. Students should meet with an advisor in the minor to design a plan for completing the minor. The specific courses taken depend in part on the student's major. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No Science Communication minor will be awarded without compliance with the above format.

The minor in Science Communication consists of three (3) required courses, one (1) additional course in written, oral, or visual communication, and one (1) additional science course beyond the General Education requirements of Domain II-B, as follows:

**The minor requires five (5) courses as follows:****A. Three (3) required courses:**

COMM	215	Science Communication (Gen. Ed. Domain III-B)
ENGL	311	Writing about Science
SCOM	495	Internship in Science Communication

*\* Upon request, internships will be arranged for students who meet the prerequisites for SCCO 495. Application and deadline information is available on the program website.*

**B. One additional course in written, oral, or visual communication:**

*Note: Science Communication is an interdepartmental minor, and as such, students may only take one course from their major to count toward this minor. Accordingly, Communication Arts majors may not take courses in this group with a COMM prefix and English majors may not take courses with an ENGL prefix to satisfy requirements for this minor.*

COMM	107	Effective Speaking (Gen. Ed. Domain I-A)
COMM	130	Introduction to Visual Communication (Gen. Ed. Domain I-B)
COMM	200	Design for Integrated Media
COMM	201	Oral Interpretation of Literature (Gen. Ed. Domain I-B)
COMM	213	Advanced Public Speaking
COMM	214	Introduction to Acting (Gen. Ed. Domain I-A)
COMM	226	Writing for Visual Media (Gen Ed. Domain I-A)
COMM	260	Voice and Articulation
COMM	280	Introduction to Film Production (Gen. Ed. Domain I-A)
COMM	328	Argumentation and Advocacy
ENGL	225	Introduction to Journalism
ENGL	280	Persuasive Writing
ENGL	286	Professional Writing
ENGL	335	Feature Writing
ENGL	377	Writing for Online and Social Media

**C. One (1) additional science course beyond the General Education requirements of Domain II-B:**

*Upon completion of Domain II-B General Education Requirements, students must take one (1) other science course from the list below. The course must have a prefix different from their major and from the other General Education courses they have completed.*

ASTR	123	Practical Astronomy
ASTR	220	The Solar System
ASTR	230	Stars and Galaxies
BIOL	101	Biological Concepts (with Lab) <b>or</b> BIOL 109 Introduction to Biological Science (with Lab) <b>or</b> BIOL 130 Principles of Biology (with Lab)
BIOL	103	Biological Perspectives on Environmental Issues
BIOL	112	Biology of Marine Organisms (with Lab)
BIOL	114	A Human Perspective on Genetics
BIOL	142	Introduction to Human Biology (with Lab)
BIOL	160	Introduction to Organismal Biology with Lab
BIOL	203	Plants and Society
CHEM	101	The Chemistry of Life
CHEM	103	General Chemistry (with Lab)
CHEM	107	Principles of Chemistry (with Lab)
CHEM	108	Principles of Chemistry & Quantitative Analysis (with Lab)
CHEM	131	Science – Environment and Health (with Lab)
EASC	131	Conversations with the Earth: An Introduction to Geology



EASC	241	Introduction to Meteorology
EASC	246	Oceanography (Gen. Ed. Domain II-B)
ENVS	101	Introduction to Environmental Science
FDSC	151	Principles of Food Science
FDSC	161	Introduction to Food Science and Technology (with Lab)
GEOL	231	Physical Geology (with Lab)
GEOL	232	Historical Geology: The Evaluation of Earth and Life Through Deep Time (with Lab)
NUTR	205	Nutrition Science and Applications
PHSC	109	Introduction to Physical Science (with Lab)
PHYS	111	Physics, Nature and Society (with Lab)
PHYS	201	Introductory Physics (with Lab)
PHYS	211	Principles of Physics I (with Lab)

*NOTE: Students in this minor are also recommended to take a course in statistics.*

## INTERDISCIPLINARY/INTERDEPARTMENTAL COURSES

### **BIOL 325 Neurobiology**

An advanced examination of the development, structure and function of the central and peripheral nervous systems. Topics covered include synaptic communication, neurotransmission, sensory and motor processing, reflexes and cellular processes of learning and memory. It is designed for biology or psychology majors with an interest in neurophysiology. **Laboratory.**

Prerequisite: NEUR 225 Biopsychology or BIOL 272 Human Anatomy and Physiology I or BIOL 234 Comparative Vertebrate Physiology or permission of the instructor.

### **ENVS 101 Introduction to Environmental Science**

A comprehensive survey of the principles concerning the interactions of humans and their environment for students intending to major in Environmental Science and Policy. The scientific foundations and the policy implications of population growth, natural resources, pollution, and agriculture are examined in the context of present capabilities and the prospects for future development. No laboratory.

Prerequisites: ENGL 110 Expository Writing (may be taken concurrently) and one (1) credit bearing math course (may be taken concurrently).

### **ENVS 202 Data Analysis for Scientists**

A comprehensive study of how to use powerful statistical tools to prepare, analyze, interpret, and visualize data collected in the physical, biological and environmental sciences. Practical and applied analysis are emphasized using case studies and critical assessment of the use of statistical methods in published literature. Topics include design of experiments, univariate distributions, exploratory data analysis, inferential statistics and hypothesis testing, linear and generalized linear models, and time-series analysis, using the statistical computing and graphics software R. Non-parametric analyses and careful consideration of confidence intervals are emphasized.

Prerequisite: MATH 123 College Algebra or the eligibility to enroll in MATH 200 Precalculus.

### **ENVS 451 Senior Thesis in Environmental Science and Policy I** (0.5 course-credit)

The first of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students apply the methods of scientific inquiry by developing an original research proposal. Topics discussed include: scientific method, problem definition, literature survey, resource bibliography, scientific writing, oral presentation skills, research design, and statistical data analysis.

Prerequisites: ENVS 101 Introduction to Environmental Science, CHEM 103 Introductory Chemistry, ENVS 202 Data Analysis for Scientists, at least two (2) 200-level science courses, one (1) 200-level policy course, GEOG 375 Resource Management (or concurrent enrollment), and minimum cumulative GPA of 1.70 in all courses required for the Environmental Science major.

**ENVS 452 Senior Thesis in Environmental Science and Policy II** (0.5 course-credit)

The second of the two-semester Environmental Science Capstone series required of all Environmental Science majors. In this course students complete their original research project by acquiring, analyzing, summarizing, and interpreting their data in both a written thesis and an oral presentation to the campus community.

Prerequisite: Completion of ENVS 451 Senior Thesis in Environmental Science I with a minimum grade of C- (1.70).

**ENVS 495 Internship in Environmental Science and Policy**

A supervised practical experience in a public or private agency, appropriate to the students training and interests. The internship program is offered through cooperation of participating institutions that provide guidance for the interns. A minimum of 160 on-site hours is necessary to complete the internship in Environmental Studies. The 160 hours must be completed within one semester. The internship in Environmental Science may be taken for one (1) course-credit in the major as a free elective. A student may not enroll in an internship more than twice (two (2) course-credits). Admission to this course must be approved by the Environmental Science Committee of the Geography and Biology Departments. Application due by October 15<sup>th</sup> for spring semester and February 15<sup>th</sup> for fall semester. *Open to Environmental Science majors only.*

Prerequisites: Senior standing, two semesters completed at Framingham State University, overall GPA of 2.75 with a 2.75 average in courses for the major.

**GLST 101 Introduction to Global Studies (Gen. Ed. Domain III-C)**

An introduction to the basic concepts and general inquiry about issues of globalization. The course serves as an interdisciplinary gateway to key debates on the social, political, economic and cultural connections of the world. Topics may include global inequalities, global warming, immigration, global health, globalization and crime, and global social movements.

**GLST 201 Research Methods: Case Studies in Globalization**

An introduction to qualitative research skills that students need in the global studies major. The course examines specific issues related to globalization. Students learn through case study analyses which provide the focusing tool for the study of a specific area concerning globalization.

Prerequisite: GLST 101 Introduction to Global Studies or permission of the instructor.

**GLST/SOCI 222 The World on the Move: Migration in a Global Era (Gen. Ed. Domain III-C)**

An exploration of migration patterns, migration experiences, and migration policies in an era of globalization. The course examines the demographic, political, and economic implications of global migration on sending and receiving nations. The course explores the meanings global migrations have for migrants and non-migrants, and discusses the changing role of the nation-state as a provider of social and economic rights for incoming migrants. Discussions also include the incorporation experience of migrants in receiving societies.

**GLST 401 Global Studies Seminar**

A seminar designed to provide students with the tools for critically analyzing the interconnectedness of global and local issues. Students explore a specific topic along the lines of their concentration area of globalization and engage in a research project to synthesize their hands-on research experience at the local level with knowledge they gathered from the work of earlier courses. Students develop a research proposal and conduct a literature review. *Open to Global Studies majors only.*

Prerequisite: Junior standing and GLST 201 Research Methods: Case Studies in Globalization.

**GLST 490 Independent Study in Global Studies**

An in-depth and self-directed study which provides the student with an opportunity to explore an area of interest and enhance knowledge in a specific topic related to Global Studies. With the approval of the program coordinator, the student works under the supervision of a faculty member from an affiliated department, and conducts research and completes reports, research papers, or any type of assignments deemed suitable by the faculty supervisor.

Prerequisite: Global Studies majors only.

**GLST 495 Internship in Global Studies**

A supervised field study or professional experience in the area of the student's interest that complements formal course work. The internship program is offered through cooperation of participating institutions that provide guidance for the interns. The field work involves a minimum of 8 hours per week (120 hours total) in an applied setting. The internship in Global Studies may be taken for one (1) course credit in the major as a free elective. A student may not enroll in an internship more than twice (two course credits). Any student interested in participating in an internship must consult with the Global Studies program coordinator prior to the middle of the semester preceding the semester of the desired internship. Students are responsible for securing a placement. A written plan for the internship must be submitted by the student to the program coordinator. The plan must be approved by the program coordinator as well as the faculty member who serves as internship coordinator. The student must meet with the faculty internship coordinator at least four (4) times during the semester.

Prerequisites: Global Studies majors of senior standing; two (2) semesters completed at Framingham State University; and approval of the Global Studies Program Coordinator.

**HNRS 101 First-Year Student Honors Seminar (Gen. Ed. Domain III-C)**

A problem-centered topics course that enables students to explore fundamental questions about human existence and meaning through the critical study of significant texts (literary, scientific, historical, theoretical) or artistic productions. Interdisciplinary in nature, this course introduces students to the ways various disciplines pose questions and seek answers. All sections of this multi-disciplinary seminar will delve into issues of gender, class, and/or race. Note: This course is open to First-Year students in the Honors Program only.

**HNRS 480 Honors Program Thesis/Project**

An independent study for which honors students design and complete research projects in the discipline of their major concentration. Projects may take an interdisciplinary approach. Students present their research at the Massachusetts Undergraduate Research Conference during the Spring semester. Honors theses are retained in a permanent archive in the Whittemore Library.

Prerequisite: Four (4) courses completed within the Honors Program.

**INTD 160 Image, Sound, and Structure: An Approach to Art and Music (Gen. Ed. Domain I-A)**

An introduction to visual art and music consisting of a seven-week music module and a seven-week visual art module. The course examines the elements and principles that compose images and musical works. In a variety of experiences, conceptual and physical, students explore the components and structures necessary to create works of music and visual art. Students are active participants in creating, listening, and responding to artistic forms. Both modules emphasize the integrative possibilities of the arts and other disciplines.

**INTD 371 Museum Studies**

An examination of the structure and functions of museums, including collections, preservation and conservation, and phases of exhibition planning. Discussion and museum trips are included in this course.

Prerequisite: Open to all majors with the permission of the instructor.

**INTD 381 Museum Seminar**

The development and presentation of a museum exhibition, including research, installation, catalog, publicity, and education programs.

Prerequisite: INTD 371 Museum Studies or permission of the instructor.

**INTD 480 Departmental Honors Program Thesis**

See Academic Program section of this Catalog regarding the Departmental Honors Program.

**INTD 490 Independent Study in American Studies**

An opportunity for the student minoring in American Studies to combine the knowledge and methodology of various disciplines in one project. Open only to students minoring in American Studies who have completed at least four (4) courses acceptable for the minor. Permission of the chairs of English and History Departments required.

**OCST 490 Washington Center Course (Independent Study)**

An opportunity for a student to select a special topic course offered and taught by the Washington Center. Prior approval of the topic from the student's major department chair is required. The student supplements the in-person classes through readings, lectures, guest speakers, and site visits. Additional assignments over and above the Washington Center requirements are required by the student's major department chair.

Prerequisites: Approved enrollment in INTD 495 Internship in Washington and permission of major department chair.

**OCST 495 Semester Internship in Washington D.C. (Three Course-Credits)**

An internship program in Washington D.C. The work placements integrate practical knowledge with theory. Tailored learning experiences sponsored by the Washington Center are specific to students' unique talents, career objectives and major, and are selected in consultation with department supervisor. Course requirements are determined by the major department chair.

Prerequisites: 2.50 GPA, permission of major department chair, and Junior standing.

**LIBS 250 Introduction to Research Methods**

An introduction to interdisciplinary research methodology. Students learn how to conduct a scholarly literature review, develop a research question, and use primary and secondary data sources. The ethics of scholarly research and the research design process are explored. The research topic varies each semester.

Prerequisite: Sophomore standing or permission of instructor. **Liberal Studies Majors only.**

**LIBS 450 Seminar in Liberal Studies**

A capstone seminar in which students engage in advanced study and research under the direction of a faculty member. In addition to completing a major research project, students may be expected to present their conclusions in a scholarly setting. The research topic varies each semester for each section of the class.

Prerequisites: LIBS 250 Introduction to Research methods and senior standing; or permission of Liberal Studies Program Coordinator. **Liberal Studies Majors only.**

**LIBS 495 Internship in Liberal Studies**

An internship for Liberal Studies majors. The internship is limited to junior and senior Liberal Studies majors who have a GPA of no less than 2.50. The internship must be in one of the academic disciplines in the student's concentration. As a supervised internship experience, it is offered in cooperation with participating institutions or individuals who agree to provide professional guidance for student-interns. Students may take the internship for up to two (2) credits towards their concentration requirements. Students are expected to work approximately 10 hours a week during the internship and may be asked to complete related assignments by the faculty supervisor. Students must have the internship proposal approved by their academic advisor and permission of Liberal Studies Program Coordinator prior to beginning the experience.

Prerequisites: Junior standing; **Liberal Studies Majors only.**

**NEUR 225 Biopsychology**

An overview of the biological foundations of behavior and mental processes. Topics covered include the biological underpinnings or various Domain in psychology such as emotion, motivation, perception, cognitive function, psychopharmacology, and hormone effects on the brain and behavior. **No Laboratory.**

Prerequisite: PSYC 101 General Psychology and one of the following biology courses: BIOL 109 Introduction to Biological Science, BIOL 130 Principles of Biology, BIOL 142 Human Biology, or BIOL 161 Introduction to Cellular and Molecular Biology; or permission of instructor.

**NEUR 380 Neuropharmacology**

An advanced investigation into the cellular and molecular mechanisms of exogenous compounds and the physiological and behavioral responses of the body. Use of substances to treat mental disorders is emphasized. Compounds examined may include alcohol, tobacco, illicit drugs, prescription pharmaceuticals, over-the-counter medications and naturopathic treatments. **No Laboratory.**

Prerequisites: Two (2) Biology courses at the 200-level or above; or two (2) Psychology courses at the 200-level or above, at least one (1) of which must be PSYC 225 Biopsychology, PSYC 245 Health Psychology or PSYC 280 Sensation and Perception; or permission of the instructor.

**NEUR 490 Independent Study in Neuroscience**

An opportunity for the advanced student to conduct an in-depth investigation of a special topic in Neuroscience relevant to the student's special interests. The ability to work independently with a high degree of motivation and self-discipline is expected. The student is responsible for arranging with a supervising professor the topics or material to be covered, the method of study and the method of evaluation. Note: Any data gathered for this course cannot be used for the research methods courses in either Biology or Psychology.

Prerequisites: Declared Neuroscience minor; junior or senior standing; completion of at least three (3) core courses in the Neuroscience minor; completion of at least two (2) semesters at Framingham State University; minimum overall GPA of 2.50; and permission of the department chair of the supervising professor.

**NEUR 495 Internship in Neuroscience**

A supervised field placement that complements prior Neuroscience course work. The internship is offered in cooperation with a participating business, institution, agency, school, hospital, or research facility. A minimum of 8 hours per week (120 hours total) must be completed in the placement setting and must be completed within one (1) semester. The field work is supported by regular meetings on campus with the supervising professor. Any student interested in an internship must consult with the chair of either the Biology Department or Psychology and Philosophy Department in the middle of the semester preceeding the semester of the desired internship. Students are responsible for securing a placement and presenting it to the department chair and supervising professor for approval. A written plan for the internship must be submitted by the student to the department chair prior to approval. Note: Data gathered for this course may not be used in any research methods courses in either Biology or Psychology.

Prerequisites: Declared Neuroscience minor; junior or senior standing; completion of at least three (3) core courses in the Neuroscience minor, completion of at least two(2) semesters at Framingham State University, minimum overall GPA of 2.50; and permission of the department chair of the supervising professor.

**SCOM 495 Internship in Science Communication**

A supervised practical experience in communicating science in an approved professional setting. Students are expected to be involved in the development and finalization of oral, visual, and written materials in which scientific work is presented. A minimum of 160 on-site hours is necessary to complete the internship, and an application is required for all arranged internships. All internships must be approved by the SCOM internship coordinator and the student's major department chair. Note: Minor in Science Communication only.

Prerequisites: Junior standing, COMM 215 Science Communication, ENGL 311 Writing About Science, and two (2) science courses (see approved list in the minor).

# Mathematics

**Chair: Julie L. Levandosky**

Professors: Sarah Mabrouk, Mohammad Salmassi,  
Sonja Sandberg

Associate Professor: Sheree Arpin, Julie L. Levandosky,  
Robert Page Jr., Nicholas Sedlock

Assistant Professors: Benjamin Atchison, May Chaar, Michael Krul,  
Perter Lert

Instructor: Rossie Nedkova, Peter Saggese

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-A (Analysis, Modeling, and Problem Solving) requirement is satisfied through the completion of the Mathematics major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## Placement Testing

Each incoming student must take placement examinations in writing, mathematics, and reading, which are administered prior to orientation for new students. Information regarding Placement Testing dates and times may be found at <http://www.framingham.edu/studentaffairs/placement.htm>. Contact the Office of First Year Programs located in the Center for Academic Support and Advising (CASA) for reservations.

## Mathematics Code Interpretation

Code    Explanation

- 1        Indicates student may not take a credit-bearing math course at Framingham State College. Student must first complete MATH 095 General Mathematics or similar remedial course at another college.
- 2        Indicates student may enroll in non-algebraic math courses: MATH 110 College Mathematics I (for Coordinate majors in Education), MATH 117 Introduction to Statistics, and MATH 119 Math for the Liberal Arts.
- 3        Indicates remedial coursework equivalent of MATH 095 General Mathematics accepted as transfer coursework and student may take any 100-level math course listed above, as well as MATH 123 College Algebra.
- 4        Indicates student may take any 100-level math course listed above, as well as MATH 123 College Algebra.
- 5        Indicates student may enroll in MATH 200 Precalculus or, after consultation with the Mathematics Department, MATH 219 Calculus I; or any 100-level mathematics course appropriate for the student's major discipline.

**MATHEMATICS MAJOR**

**All students must complete the following eight (8) core courses:**

MATH 157	Probability and Statistics
MATH 206	Discrete Mathematics I
MATH 219	Calculus I
MATH 220	Calculus II
MATH 221	Calculus III
MATH 226	Linear Algebra and Applications
MATH 319	Abstract Algebra I
One (1) computer science course	

**CONCENTRATIONS IN MATHEMATICS****GENERAL (UMAG) (11):**

**In addition to the eight (8) core requirements above, each student must complete:**

Five (5) mathematics electives from the following:

MATH 215	Finite Mathematics
MATH 222	Differential Equations

Any mathematics courses at the 300-level or above

Five (5) electives from mathematics (at the 200-level or above), physics, computer science, or an approved minor.

**Capstone:**

MATH 427	Real Analysis
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**MATHEMATICS WITH MINOR IN SECONDARY EDUCATION (UMAT):**

**In addition to the eight (8) core requirements above, each student must complete:**

Concentration core:

MATH 317	Higher Geometry
MATH 322	History of Mathematics

Three (3) mathematics electives from the following:

MATH 215	Finite Mathematics
MATH 222	Differential Equations

Any mathematics courses at the 300-level or above

**Capstone:**

MATH 427	Real Analysis
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**Choose Option A or B:****Option A: Minor in Secondary Education – Middle School (Grades 5-8)**

EDUC 200	Education in American Society with Field Study I
EDUC 222	Sheltered English Immersion

EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	315	Professional Preparation and Field Study II: General and Discipline-Specific Methods for High School
EDUC	410	Student Teaching Practicum and Seminar I: High School (2 course-credits)
EDUC	411	Student Teaching Practicum and Seminar II: High School (2 course-credits)
PSYC	200	Psychology of Development

**Option B: Minor in Secondary Education – High School (Grades 9-12)**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	316	Professional Preparation and Field Study II: General and Discipline-Specific Methods for Middle School
EDUC	414	Student Teaching Practicum and Seminar I: Middle School (2 course-credits)
EDUC	415	Student Teaching Practicum and Seminar II: Middle School (2 course-credits)
PSYC	200	Psychology of Development

**Note:** Mathematics Department prerequisites for EDUC 315 Professional Preparation and Field Study II - High School and EDUC 316 Professional Preparation and Field Study II - Middle School are completion of:

All required mathematics courses except:

MATH	319	Abstract Algebra I
MATH	427	Real Analysis

Prerequisites for EDUC 410 Student Teaching Practicum and Seminar I: High School and EDUC 411 Student Teaching Practicum and Seminar II: High School or EDUC 414 Student Teaching Practicum and Seminar I: Middle School and EDUC 415 Student Teaching Practicum and Seminar II: Middle School are completion of all department requirements and completion of EDUC 300 Professional Preparation II: Special Needs and Educational Technology and EDUC 315 Professional Preparation and Field Study II: Methods, Special Education and Technology for High School or EDUC 316 Professional Preparation and Field Study II: Methods, Special Education and Technology for Middle School, depending on the level.

**COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION (UMAE)**

**I. Mathematics requirements**

In addition to the eight (8) core requirements listed above, each student must complete:

Concentration core:

MATH	110	College Mathematics I
MATH	120	College Mathematics II
MATH	322	History of Mathematics

Two (2) mathematics electives from the following:



MATH	215	Finite Mathematics or
MATH	222	Differential Equations

Any mathematics courses at the 300-level or above

*It is strongly recommended that students select MATH 301 Problem Solving and Modeling in Mathematics as one of the mathematics electives among the core courses.*

## II. Choose A or B

### A. Coordinate Major in Early Childhood Education (Pre-K-Grade 2 Licensure)

PSYC	200	Psychology of Development
EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	320	The Young Child: Emerging Literacy with Field Study II
EDUC	374	Early Childhood Curriculum: Mathematics and Science with Field Study III
EDUC	376	Early Childhood Curriculum: Reading, Social Studies, and Special Needs

The Professional Semester (2 courses – 4 Course-credits):

EDUC	431	Early Childhood Professional Practicum A (First half of semester) (2 Course-credits)
EDUC	432	Early Childhood Professional Practicum B (Second half of semester) (2 Course-credits)

### B. Coordinate Major in Elementary Education (Grades 1 - 6 Licensure)

PSYC	200	Psychology of Development
EDUC	222	Sheltered English Immersion
EDUC	200	Education in American Society with Field Study I
EDUC	322	The Child and Literacy with Field Study II
EDUC	341	Elementary Curriculum: Mathematics with Field Study III
EDUC	346	Elementary Curriculum: Science, Social Studies, and Special Needs

The Professional Semester (2 courses – 4 Course-credits):

EDUC	437	Elementary Professional Practicum A (First half of the semester) (2 Course-credits)
EDUC	438	Elementary Professional Practicum B (Second half of semester) (2 Course-credits)

## MINORS

### MINOR IN MATHEMATICS (5 COURSES)

#### Required courses:

MATH	219	Calculus I
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One (1) mathematics course at or above the 200-level or one (1) of the following:

MATH	107	Business Statistics
MATH	117	Introduction to Statistics
MATH	157	Probability and Statistics
MATH	208	Biostatistics

Three (3) additional mathematics courses at or above the 200-level.

*These courses are to be chosen under the guidance of a member of the Mathematics Department.*

### MINOR IN STATISTICS (5 COURSES)

#### Required courses:

MATH 117	Introduction to Statistics <u>or</u>
MATH 157	Probability and Statistics
MATH 307	Intermediate Statistics
MATH 308	Applied Statistical Data Processing

Choose two (2) electives from the following:

CSCI —	A computer science course ( <i>only one computer science course may be used as an elective towards a minor in statistics</i> )
MATH 206	Discrete Mathematics I
PSYC 291	Psychology Research I: Descriptive and Correlational Methods
PSYC 391	Psychology Research II: Quasi-Experimental and Experimental Methods

### MATHEMATICS COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Courses		Domain(s)
MATH 105	Quantitative Reasoning	II-A
MATH 107	Business Statistics	II-A
MATH 110	College Mathematics I	II-A
MATH 117	Introduction to Statistics	II-A
MATH 119	Mathematics for the Liberal Arts	II-A
MATH 120	College Mathematics II	II-A
MATH 123	College Algebra	II-A
MATH 157	Probability and Statistics	II-A
MATH 200	Precalculus	II-A
MATH 217	Business Calculus	II-A
MATH 219	Calculus I	II-A

### MATHEMATICS COURSE DESCRIPTIONS

#### MATH 095 General Mathematics (no course credit)

A review of introductory algebra including real numbers, exponents, polynomials, rational expressions, linear equations and inequalities, quadratic equations, graphing, and systems of linear equations. **Note:** This is a non-credit course.

#### MATH 105 Quantitative Reasoning (Gen. Ed. Domain II-A)

An immersion in quantitative problem-solving, as it relates to real-world scenarios, with the goal of producing citizens and workers capable of making informed decisions. Topics related to numbers in the news, financial mathematics, mathematical modeling, and probability and statistics enable students to sharpen their previously learned arithmetic and algebra skills. An emphasis is placed on critical reading, sound reasoning, and precise oral and written communication in various applied situations.

Prerequisite: Satisfactory score on the mathematics placement examination.

**MATH 107 Business Statistics (Gen. Ed. Domain II-A)**

An introduction to the discipline of statistics, emphasizing its applications in a business context. Topics include descriptive and inferential statistics, probability, regression, confidence intervals, and hypothesis testing. Note: Students may not receive credit for both this course and MATH 117 Introduction to Statistics or MATH 157 Probability and Statistics or MATH 208 Biostatistics.

Prerequisite: Satisfactory score on the mathematics placement examination.

**MATH 110 College Mathematics I (Gen. Ed. Domain II-A)**

An exploration of numbers, their representations, relationships, and uses; arithmetic; elementary set theory; basic logic; geometry; measurement; probability; and statistics. This course offers a college-level treatment of content areas of interest to prospective early childhood and elementary teachers. Problem-solving and the communication of mathematical ideas, both verbally and algebraically, are woven throughout the course. **Note:** Students may not receive credit for both MATH 110 and MATH 113 Introduction to College Mathematics.

Prerequisite: Satisfactory score on the mathematics placement examination or permission of the Mathematics Department.

**MATH 117 Introduction to Statistics (Gen. Ed. Domain II-A)**

An introduction to the discipline of statistics, emphasizing both statistical thinking and its application to analyzing data. Topics include sampling, design of experiments, organizing and exploring data, probability distributions such as the normal distribution, sampling distributions, hypothesis testing and confidence intervals, correlation and regression. Students are expected to express results of statistical procedures in ordinary non-technical language. Real world applications of statistical topics are emphasized throughout the course. **Note:** Students may not receive credit for both this course and MATH 107 Business Statistics or MATH 157 Probability and Statistics or MATH 208 Biostatistics.

Prerequisite: Satisfactory score on the mathematics placement examination.

**MATH 119 Mathematics for the Liberal Arts (Gen. Ed. Domain II-A)**

A survey of the beauty and effectiveness of mathematics in describing natural and social phenomena. Topics may include pattern recognition, logic, sets, number systems, counting methods, probability, statistics, symmetry, population growth, voting systems, or consumer mathematics. This course is recommended for students whose major does not require MATH 110 College Mathematics I, or MATH 117 Introduction to Statistics, or MATH 123 College Algebra.

Prerequisite: Satisfactory score on the mathematics placement exam.

**MATH 120 College Mathematics II (Gen. Ed. Domain II-A)**

A continuation of MATH 110 College Mathematics I, providing further exploration of numbers and arithmetic, geometry, measurement, probability, and statistics from the point of view of prospective early childhood and elementary school teachers. As in MATH 110, problem solving and the communication of mathematical ideas, both verbally and algebraically, are strands that unite the course.

Prerequisite: MATH 110 College Mathematics I.

**MATH 123 College Algebra (Gen. Ed. Domain II-A)**

An exploration of numerical, graphical, and symbolic approaches to algebraic concepts with emphasis on real-world applications, modeling, and problem-solving skills. Topics include polynomials, rational expressions, equations and inequalities, systems of linear equations, matrices, and the connection between functions and their graphs.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

**MATH 157 Probability and Statistics (Gen. Ed. Domain II-A)**

A study of probability and statistics intended for mathematics majors. After a brief survey of descriptive statistics, topics include counting techniques, discrete and continuous probability distributions, Baye's rule, correlation and regression, confidence intervals, sampling distributions, the Central Limit Theorem, and hypothesis testing. **Note:** Students may not receive credit for both this course and MATH 107 Business Statistics or MATH 117 Introduction to Statistics or MATH 208 Biostatistics.

Prerequisite: MATH 095 General Mathematics or a minimum score of 4.0 on the mathematics placement examination.

**MATH 200 Precalculus (Gen. Ed. Domain II-A)**

A thorough preparation in the skills and topics needed to study calculus. After a review of polynomial and rational functions and their graphs, topics include inverse functions, exponential and logarithmic functions, and trigonometric functions.

Prerequisite: Completion of MATH 123 College Algebra with a minimum grade of C (2.00) or better, or a satisfactory score on the mathematics placement examination.

**MATH 206 Discrete Mathematics I**

An introduction to mathematical rigor and reasoning. Topics include logic, sets, functions, combinatorics, sequences and summations, recursion, and mathematical induction, with an emphasis on methods of proof. Note: A student may not receive credit for both this course and MATH 292 Discrete Mathematics.

Prerequisite: MATH 200 Precalculus or permission of the instructor.

**MATH 208 Biostatistics**

A course that covers statistical methods as they apply to the biological, health, and food sciences. The major emphasis is on hypothesis testing, including regression and analysis of variance. Descriptive statistics is also included. The statistical package Minitab is used. Note: Students may not receive credit for both this course and MATH 107 Business Statistics or MATH 117 Introduction to Statistics or MATH 157 Probability and Statistics, or BIOL 304 Biometrics.

Prerequisite: Sophomore standing and satisfactory score on the mathematics placement examination.

**MATH 215 Finite Mathematics**

A study of mathematical models in various disciplines. Topics include logic, sets, functions, combinatorics, probability, matrices, Markov chains, linear programming, game theory, and digraphs.

Prerequisite: MATH 200 Precalculus or permission of the instructor.

**MATH 217 Business Calculus (Gen. Ed. Domain II-A)**

A survey of the mathematical skills required in upper-level business courses. Emphasis is placed on applications of mathematics discussed in a business context. Topics include functions, polynomial equations, linear models and regression, systems of linear equations and matrix equations, and differential calculus.

Prerequisites: ECON 101 Principles of Macroeconomics or ECON 102 Principles of Microeconomics; and MATH 107 Business Statistics.

**MATH 219 Calculus I (Gen. Ed. Domain II-A)**

A study of functions, limits, continuity, the derivative, rules of differentiation of algebraic, trigonometric, exponential and logarithmic functions, applications of differentiation, definite and indefinite integrals, and the Fundamental Theorem of Calculus.

Prerequisite: Completion of MATH 200 Precalculus with a minimum grade of C (2.00) or better, or a satisfactory score on the mathematics placement examination.

**MATH 220 Calculus II**

A study of the applications of integration, first-order linear and separable differential equations, techniques of integration, improper integrals, sequences, series, and Taylor and Maclaurin Series.

Prerequisite: Completion of MATH 219 Calculus I with a minimum grade of C (2.00) or better.

**MATH 221 Calculus III**

A study of conic sections; vectors in two and three dimensions; dot and cross products and their applications to geometry; equations of lines and planes; quadratic surfaces; polar, cylindrical, and spherical coordinates; and functions of several variables, partial derivatives, differentials, directional derivatives, gradients, optimization problems, multiple integrals and their applications.

Prerequisite: MATH 220 Calculus II.

**MATH 222 Differential Equations**

A study of the methods for solving linear and elementary nonlinear differential equations with special emphasis on applications in the sciences. Topics covered include equations of the variable separable type; exact, homogeneous and Bernoulli equations; the method of substitution; approximation methods; linear equations; series techniques; Laplace transforms; systems of equations; and the Sturm-Liouville theory.

Prerequisites: MATH 220 Calculus II and MATH 226 Linear Algebra and Applications.

**MATH 226 Linear Algebra and Applications**

A study of vector spaces, subspaces, linear dependence, bases, dimension, linear mappings, linear equations, matrices, inner products and norms, determinants, quadratic forms, and the spectral theorem. Applications to various fields outside of mathematics are examined.

Prerequisites: MATH 206 Discrete Mathematics I and MATH 219 Calculus I.

**MATH 231 Euclidean Geometry**

An investigation of the various approaches to the study of Euclidean geometry including the metric and synthetic approaches as axiomatic systems. Topics include Polyhedra, tessellations, symmetry groups, and coordinate geometry. Geometric proofs are emphasized throughout the course. An introduction to non-Euclidean geometries allows for comparisons to and contrasts with Euclidean geometry.

Prerequisite: MATH 206 Discrete Mathematics I.

**MATH 301 Problem Solving and Modeling in Mathematics**

A study in problem solving with the development of banks of problems appropriate to various grade levels and selected from arithmetic, informal geometry, logic, measurement, number sequences, probability, and statistics, challenging enough to provoke interest, but realistic enough for successful experiences. Heuristics, problem solving techniques, Polya's stages of problem solving, specific strategies, and pedagogical issues are studied.

Prerequisite: MATH 206 Discrete Mathematics I.

**MATH 307 Intermediate Statistics**

A study of regression and correlation analysis, chi square tests and contingency tables, design of experiments, analysis of variance, non-parametric statistics, and introduction to data analysis.

Prerequisite: MATH 117 Introduction to Statistics or MATH 107 Business Statistics or MATH 208 Biostatistics.

**MATH 308 Applied Statistical Data Processing**

Practical aspects of data analysis using statistical computer packages such as MINITAB, SPSSX, AND BMDP. Multivariate statistical methods including multiple regression, analysis of covariance, factor analysis, multidimensional scaling, discriminant analysis and linear models for cross-classified categorical data are emphasized. Students do individual data analysis projects.

Prerequisite: MATH 307 Intermediate Statistics.

**MATH 310 Number Theory**

A study of the integers, including divisibility, prime numbers, and modular arithmetic. Topics include congruences, the Fundamental Theorem of Arithmetic, multiplicative functions, primitive roots, quadratic reciprocity, and classic number sets. Theory is explored using a computer algebra system.

Prerequisite: MATH 206 Discrete Mathematics I.

**MATH 313 Numerical Methods**

A study of topics from elementary numerical analysis including finite differences, solution of equations, interpolation, numerical integration, and numerical linear algebra. Topics examined are reinforced through computer exercises and applications.

Prerequisites: MATH 220 Calculus II and one (1) computer science course. Recommended: MATH 226 Linear Algebra and Applications.

**MATH 317 Higher Geometry**

A precise, rigorous examination of the axioms and concepts of various geometries. Euclidean, non-Euclidean, and transformational geometries are investigated, and proofs are emphasized throughout the course.

Prerequisite: Sophomore status and MATH 206 Discrete Mathematics I.

**MATH 319 Abstract Algebra I**

An introduction to algebraic structures including groups, rings, and fields, as well as morphisms and sub-structures. Fundamental number theoretic topics are included to establish connections and provide examples in the context of abstract algebra.

Prerequisite: MATH 226 Linear Algebra.

**MATH 330 Discrete Mathematics II**

A continuation of MATH 206 Discrete Mathematics I. Topics include a brief review of sets and an exploration of graphs, trees, digraphs, and networks.

Prerequisite: MATH 206 Discrete Mathematics I.

**MATH 322 History of Mathematics**

An examination of the development of mathematical concepts through the years. The use of historical material in the classroom, the reading of original sources, and study of famous problems are emphasized. Topics include ancient Egyptian, Greek, and Islamic mathematics and, solutions to polynomial equations, up to the development of the calculus.

Prerequisite: MATH 220 Calculus II.

**MATH 331 Principles of Actuarial Mathematics**

An introduction to mathematical applications in the actuarial fields of theory of interest and survival analysis. Topics from the theory of interest include simple and compound interest, annuities, amortization schedules, and sinking funds. Topics from survival analysis include death rates, standardized mortality ratios, common survival distributions, cohorts, and current and select life tables.

Prerequisites: MATH 220 Calculus II and one (1) statistics course. Recommended: One (1) computer science course.

**MATH 324 Applied Mathematics**

A survey of the foundations of calculus of a single complex variable. Topics include defining the complex plane, differential calculus of complex functions, elementary functions on the complex plane, the Cauchy-Riemann equations, contour integrals, the Cauchy Integral Formula, Liouville's Theorem, and the Fundamental Theorem of Algebra.

Corequisite: MATH 221 Calculus III.

**MATH 339 Abstract Algebra II**

A continuation of MATH 319 Abstract Algebra I, with the goal of furthering the study of essential topics including: normal subgroups, ideals, polynomial rings, and Galois Theory. Additional topics are addressed to establish connections to applications in modern mathematics.

Prerequisite: MATH 319 Abstract Algebra I.

**MATH 340 Probability Theory**

A study of general probability and random variables with univariate and multivariate probability distributions. Topics include axioms of probability, combinatorial and conditional probabilities, special distributions, and the Central Limit Theorem. Examples from scientific and business fields may be discussed. Upon course completion, students should be prepared for the Society of Actuaries (SOA) Preliminary Exam P (Probability).

Prerequisites: MATH 206 Discrete Mathematics I and MATH 221 Calculus III (may be taken concurrently), or permission of the instructor..

**MATH 346 Complex Analysis**

The study of problems arising from real-world situations and the mathematical methods used in their solution. Topics include mathematical modeling, continuous and discrete models, linear systems, Fourier series, and partial differential equations.

Corequisite: MATH 221 Calculus III.

**MATH 390 Special Topics in Mathematics**

An in-depth examination of topics in mathematics at a level beyond that of introductory courses. Topics vary depending on the interests of the instructor and may be interdisciplinary. This course may be taken twice, provided a different special topic is offered.

Prerequisites: MATH 206 Discrete Mathematics I and MATH 220 Calculus II, or permission of the instructor. Additional prerequisites may be required dependent upon topic.

**MATH 427 Real Analysis**

Set theory, relations and functions, properties of the real number system, topology of the real line, introduction to metric spaces, limits of sequences and functions, continuous functions, differentiation, and the Riemann-Stieltjes integral.

Prerequisite: MATH 221 Calculus III.

**MATH 490 Directed Study in Mathematics**

Student research on a topic or topics in higher mathematics or computer science. Suggested areas include applied algebra, numerical analysis, and mathematical physics. The student should make arrangements with the faculty member who is to direct the work one semester in advance of the work.

Prerequisite: Approval of Department Chair.

**MATH 495 Internship in Mathematics**

The student is encouraged (and assisted to whatever extent possible) by the Mathematics Department to seek employment during summers or part time during the school year, involving non-trivial applications of mathematics. In this manner the student can earn up to three (3) course credits, the amount of credit being decided by the student's advisor and the department chair.

Prerequisite: Approval of Department Chair.

# Nursing

**Chair: Susan Mullaney**

Professor: Cynthia Bechtel, Susan L. Conrad,  
Susan Mullaney, Ruth Remington, Annmarie Samar

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

The University offers a Bachelor of Science with a major in Nursing for registered nurses who already have completed either an Associate Degree or a Diploma Program in Nursing. The baccalaureate degree program in nursing at Framingham State University is accredited by the Commission on Collegiate Nursing Education (CCNE); <http://www.aacn.nche.edu/ccne-accreditation>.

The curriculum provides a broad educational base in the humanities and in the natural and social sciences. The program encourages self-directed learning, critical thinking, independent action, and professional awareness. The goal is preparation of a nurse who is able to function as a generalist in a variety of health-care settings. The course of study provides a base for graduate work in education, research, clinical specialization, or administration.

The curriculum is organized around the concept of prevention as a means of attaining wellness includes:

1. Primary prevention - to prevent the initiation of illness through the reduction of risk factors and the promotion of wellness.
2. Secondary prevention - to arrest the development of illness through early detection of illness and the promotion of wellness.
3. Tertiary prevention - to minimize the consequences of illness and disability through the promotion of wellness.

**Program Outcomes:**

1. Apply nursing theory and research principles in making evidence-based decisions on nursing practice in relation to the three levels of preventive health nursing care.
2. Use nursing process as a means of decision making for refining and extending practice.
3. Synthesize the theoretical and empirical knowledge from the natural and behavioral sciences and the humanities with nursing theory in preventive health care.
4. Provide nursing activities of education, motivation, advocacy, and assistance to the person in relation to health.
5. Demonstrate accountability for decision making related to professional nursing.
6. Evaluate research for applicability of its findings to nursing theory and practice.
7. Demonstrate leadership skills through interaction with others as a professional nurse.
8. Communicate effectively in collaboration with members of the intraprofessional team to enhance the health care delivery system.
9. Participate in resolving community and societal health needs through nursing activities.
10. Provide comprehensive and individual nursing care based on assessment which includes the person's socioeconomic status, life style, gender, culture, and personal values and beliefs.
11. Use current technologies to enhance nursing practice.

**Applicants must meet the following requirements for undergraduate admissions:**

1. Submit official transcripts from basic nursing programs and all colleges and/or universities attended.
2. Submit evidence of current unrestricted Registered Nurse licensure in Massachusetts (may apply during basic nursing program, but must be licensed prior to taking nursing courses).

**Nursing Education Transfer Compact (NETP)**

For Registered Nurses who graduated from public Associate Degree in Nursing Programs in Massachusetts, the NETP includes:

- Acceptance in transfer all courses earned as part of a Board of Registration in Nursing (BORN) approved public Associate Degree in Nursing (ADN) program, without time restriction\*, as a body of knowledge and practical experience that is a prerequisite to National Council Licensure Examination (NCLEX) licensure.

\*Exceptions to this policy may be applied by FSU for specific courses, i.e. sciences

Transfer credit evaluations are completed by the Office of the University Registrar. Registered Nurses may receive credit for nursing and non-nursing college-level courses successfully completed at other regionally-accredited higher education institutions.

**The General Education Requirement**

As per the Nursing Education Transfer Policy (NETP), nursing students who attended a Massachusetts state community college and have completed the Mass Transfer Block (General Education), as indicated as such on the community college transcript, may be required to complete no more than two additional courses at FSU to satisfy FSU's Domain General Education model. A nursing student who has previously completed a bachelor's degree from a regional-accredited institution in the United States will have FSU's Domain General Education model as completed.

Students who do not meet the General Education requirements through the Mass Transfer Block (General Education) must meet the University's Domain General Education Requirements. See the Framingham State University Undergraduate Catalog for details.

**Lower Division Nursing Knowledge:****Diploma Programs**

Registered Nurses who graduated from a Diploma program approved by a state Board of Registration in Nursing (BORN) will earn seven (7) transfer course-credits.

**Foreign Nursing Programs**

Transcripts of Registered Nurses who graduated from foreign nursing programs will be evaluated on an individual basis. Transfer credit for previous nursing courses (7 course-credits/28 semester hours) can be earned through successful completion of the ACEII and Clinical Practice examinations.

**Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.



## NURSING MAJOR

### UPPER DIVISION NURSING MAJOR (UNUR)

The upper division Nursing major may be completed in as few as three (3) semesters:

NURS	310	Professional Nursing Perspectives
NURS	325	Nursing Informatics
NURS	330	Primary Prevention in the Community
NURS	420	Nursing Theory
NURS	430	Secondary Prevention
NURS	440	Introduction to Nursing Research
NURS	460	Nursing Leadership
NURS	470	Tertiary Prevention

*NOTE: As mandated by the Massachusetts General Laws 444 of the Acts of 1996, a criminal offender record information (CORI) check will be performed on students who will have clinical experience in community and home settings.*

### Performance Standards

1. A GPA of 2.00 in nursing courses is required for continuance in the program.
2. A grade of at least C- (1.70) is required in nursing courses.
3. When a grade of D+ (1.30) or lower is received in a nursing course the course may be repeated only once.
4. Failure to meet these standards will result in dismissal from the program.

Any student on academic probation cannot be admitted to:

NURS 440	Introduction to Nursing Research
NURS 460	Nursing Leadership
NURS 470	Tertiary Prevention.

## NURSING COURSE DESCRIPTIONS

### NURS 310 Professional Nursing Perspectives

An overview of the Nursing Department's philosophy, conceptual framework, and objectives. Philosophical, historical, ethical, economic, and legal aspects of nursing practice are examined. Contemporary and future goals of the nursing profession in relation to education, practice and research, as well as the health care delivery system are investigated. In the practice learning experience component students explore professional nursing activities and the course concepts.

Prerequisite: Must be an R.N.

### NURS 325 Nursing Informatics

A Web-enhanced course that introduces the student to the role of nursing informatics in identifying, collecting, processing, and managing information that uniquely impacts nursing practice. The practice learning experience component emphasizes the development of proficiency in the use of the computer as a critical thinking and decision-making tool.

Prerequisite: Nursing majors only.

**NURS 330 Primary Prevention in the Community**

An exploration of community values, beliefs, standards, and practices as they relate to health. The concept of primary prevention is applied through the nursing activities of education, motivation, advocacy, and assistance. A community-based practice learning experience component with a focus on prevention is included.

Prerequisite: Nursing majors only.

**NURS 420 Nursing Theory**

An examination of nursing theory, the scientific process of theory development, and theory evaluation. Selected nursing theories that are relevant to current nursing practice are analyzed and applied in the practice learning experience component.

Prerequisites: NURS 310 Professional Nursing Perspectives.

**NURS 430 Secondary Prevention**

An overview of the utilization of functional health pattern nursing assessment to identify health at the secondary level of prevention in order to arrest the development of illness and promote wellness. The practice learning experience component enables the student to deliver nursing care through the use of the nursing process.

Prerequisites: NURS 310 Professional Nursing Perspectives and NURS 330 Primary Prevention in the Community.

**NURS 440 Introduction to Nursing Research**

An introduction to the research process and the evaluation of nursing research. The practice learning experience activities are organized around the identification and exploration of specific nursing problems.

Prerequisites: NURS 325 Nursing Informatics.

**NURS 460 Nursing Leadership**

A presentation of theories of leadership and management and their applications to nursing. Central concepts included are: communication theory, teaching-learning theory, the nurse's role in delegation of responsibility, evaluation of nursing care, and effecting change. The practice learning experience component enables the student to apply the principles of nursing practice.

Prerequisites: NURS 325 Nursing Informatics.

**NURS 470 Tertiary Prevention**

An examination of the role of health-related behaviors in chronic illness or disability. Aspects of habilitation and rehabilitation are explored throughout the person's life. The practice learning experience component enables the student to apply nursing theory to the care of individuals and families in order to minimize the negative consequences of illness or disability.

Prerequisites: NURS 430 Secondary Prevention.

**NURS 490 Independent Study in Nursing**

An investigation of a topic in Nursing selected by the student with supervision of a member of the Nursing Department. The selection of a topic is made by the student with written approval of the faculty supervisor. A final report and oral presentation are required. All proposals must be approved by the faculty supervisor and the Department Chair.

Prerequisites: A 3.00 GPA overall and in the major.

# Physics and Earth Sciences

## Chair: Vandana Singh

Associate Professors: Vandana Singh

Assistant Professor: Kristin Chon, Lawrence McKenna

Instructor: Douglas Leaffer

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## University Planetarium

Coordinating Director: Kristin Chon

The University Planetarium is located in the McAuliffe Center. The fully automated planetarium theater is equipped with a Spitz 512 prime sky projector capable of showing the 2500 brightest stars found in the night sky, digital multimedia, and Dolby surround sound. The planetarium sky is a hemisphere 30 feet in diameter, with seating beneath the dome accommodating 49 students.

## EARTH SCIENCE MAJOR

### The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-B (Natural Sciences) requirement is satisfied through the completion of the Earth Science major.

### Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

### Departmental Requirements for Major (UESG) (15 Courses):

#### Major Core Courses (12 Courses):

ASTR	220	The Solar System
ASTR	230	Stars and Galaxies
CHEM	107	Principles of Chemistry (Gen. Ed. Domain II-B, Lab)
CHEM	108	Principles of Chemistry and Quantitative Analysis
EASC	131	Conversations with the Earth: An Introduction to Geology or
GEOL	232	Historical Geology: The Evolution of Earth and Life Through Deep Time
EASC	241	Introduction to Meteorology
EASC	246	Oceanography
ENVS	101	Introduction to Environmental Science
GEOL	231	Physical Geology
GEOL	233	Environmental Geology
MATH	200	Precalculus (Gen. Ed. Domain II-A)
PHYS	201	Introductory Physics

**Choose Two (2) Elective Courses from the following):**

BIOL	130	Principles of Biology (Gen.Ed. Domain II-B & Lab)
BIOL	248	Principles of Ecology
CHEM	201	Introductory Organic Chemistry and Biochemistry
CSCI	120	Introduction to Information Technology
ENVS	202	Data Analysis for Scientists
GEOG	203	Introduction to Physical Geography
GEOG	216	Introduction to Geographical Information Systems
GEOG	375	Resource Management

**Capstone (1 course):**

EASC	450	Seminar in Earth Science
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**EARTH SCIENCE WITH MIDDLE SCHOOL EDUCATION MINOR (UEST)**

Students seeking licensure at the Middle School level must complete the major core courses and capstone requirement and take the following two (2) specified elective courses along with the specified Education courses:

**Specified General Education courses (2 courses):**

BIOL	101	Biological Concepts (Gen.Ed. Domain II-B & Lab)
PSYC	200	Psychology of Development (Gen.Ed. Domain III-B)

**Education Minor courses (8 Course-credits):**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	316	Professional Preparation and Field Study II (2 Course-credits)
EDUC	414	Student Teaching Practicum & Seminar I (2 Course-credits)
EDUC	415	Student Teaching Practicum and Seminar II (2 Course-credits)

**Note:** The Earth Science major prerequisites for EDUC 300 Professional Preparation II: Special Needs and Educational Technology and EDUC 316 Professional Preparation and Field Study II: Methods, Special Education, and Technology - Middle School are completion of the General Education Requirements

**PRE-ENGINEERING PROGRAM (UPEN)**

This program establishes a freshman and sophomore curriculum leading to transfer admission by Articulation Agreement (2+3) to a Bachelor of Science degree program in one of the engineering disciplines at the:

University of Massachusetts-Lowell in Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering, Plastics Engineering, and Engineering Technology;

University of Massachusetts-Dartmouth: Bio-Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Mechanical Engineering;

Mass Maritime Academy: Energy Engineering, Facilities Engineering.

Each student who enters the program will be assigned an advisor from the Department of Physics and Earth Sciences. By the end of their freshman year, students should be considering what specific area of engineering they wish to transfer into at the above mentioned institutions. It may be necessary for transfer students to schedule summer session coursework if they wish to complete all degree requirements over a four year period.

The program of study during the two years at Framingham State University is shown below. Each incoming student must pass the mathematics placement examination in order to register for a credit-bearing mathematics course. Students must do well on this examination to begin the mathematics sequence with Calculus I. Students who do not place into the Calculus I course are required to take additional mathematics prior to taking Calculus I. Courses to be taken during the sophomore year of the program depend, to some extent, on the choice of engineering concentration.

**Freshman Year: (common to all engineering options)**

**Fall Semester**

CHEM	107	Principles of Chemistry
EGNR	101	Introduction to Engineering
ENGL	110	Expository Writing
MATH	219	Calculus I

**Spring Semester**

CHEM	108	Principles of Chemistry and Quantitative Analysis
CSCI	130	Computer Science I Using Java
ECON	102	Principles of Microeconomics
MATH	220	Calculus II

**Sophomore Year:**

**Fall Semester**

MATH	221	Calculus III
PHYS	211	Principles of Physics I
ENGL	_____	A Literature course
	_____	Elective*

**Spring Semester**

CSCI	215	Computer Science II Using Java
EGNR	201	Engineering Mechanics
PHYS	212	Principles of Physics II
	_____	Elective*

*\*Electives (suggested):*

BIOL	160	Introduction to Organismal Biology
BIOL	161	Introduction to Cell and Molecular Biology
CHEM	207	Organic Chemistry I
CHEM	208	Organic Chemistry II
ECON	101	Principles of Macroeconomics
MATH	222	Differential Equations

**COORDINATE EDUCATION MAJOR WITH INTERDISCIPLINARY MAJOR: SPECIALIZATION IN NATURAL SCIENCES (UIDA)  
(Home Department-Physics and Earth Sciences)**

The Physics and Earth Sciences Department sponsors the Interdisciplinary Major in Natural Sciences for students seeking licensure at the early childhood or elementary level. For more specific information, refer to the Education section of the catalog.

**MINORS****MINOR IN EARTH SYSTEM SCIENCE (5 COURSES)**

Three (3) required courses:

GEOL	231	Physical Geology
GEOL	232	Historical Geology: The Evolution of Earth and Life through Deep Time
GEOL	233	Environmental Geology

Choose two (2) of the following:

ASTR	123	Practical Astronomy
ASTR	220	The Solar System
EASC	131	Conversations with the Earth: An Introduction to Geology
EASC	241	Introduction to Meteorology
EASC	246	Oceanography

**MINOR IN PHYSICS (5 COURSES)**

The following courses are required to complete this minor:

PHYS	211	Principles of Physics I
PHYS	212	Principles of Physics II
PHYS	272	Modern Physics
CHEM	303	Physical Chemistry I
PHIL	118	Introduction to Philosophy of Science

**PHYSICS AND EARTH SCIENCES COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)**

Courses			Domain
ASTR	123	Practical Astronomy	II-B
ASTR	220	The Solar System	II-B
ASTR	230	Stars and Galaxies	II-B
EASC	131	Conversations with the Earth – An Introduction to Geology	II-B
EASC	241	Introduction to Meteorology	II-B
EASC	246	Oceanography	II-B
GEOL	231	Physical Geology	II-B, Lab
GEOL	232	Historical Geology: The Evolution of Earth and Life Through Deep Time	II-B, Lab
PHSC	109	Introduction to Physical Science	II-B, Lab
PHYS	111	Physics, Nature, and Society	II-B, Lab
PHYS	201	Introductory Physics	II-B, Lab
PHYS	211	Principle of Physics I	II-B, Lab

**ASTRONOMY COURSE DESCRIPTIONS**

**ASTR 123 Practical Astronomy (Gen. Ed. Domain II-B, Lab)**

An introduction to the concepts of astronomy and their relationship to the world around us. How fast does the Sun appear to move? What can we learn from just observing the stars? How has astronomy played a part in historical events? This laboratory course offers hands-on experiments using the University’s state-of-the-art digital planetarium to address questions such as these as well as to unravel the mysteries of the universe and inspire an excitement of the cosmos. **Laboratory (3 hours).**

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

**ASTR 220 The Solar System (Gen. Ed. Domain II-B)**

An overview of what we know about the Solar System: how it began and evolved, its components and their properties, and how these elements interact as a system. Topics include the history and physics of astronomy, celestial motions, the Earth-Moon-Sun system, the terrestrial and jovian planets, natural satellites and ring systems, asteroids and comets, the origins and fate of our Solar System, and the origins of life. Lectures are supplemented by selected readings, planetarium presentations, and telescopic observations. NOTE: Credit will not be given for this course and ASTR 251 Introduction to Astronomy.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

**ASTR 230 Stars and Galaxies (Gen. Ed. Domain II-B)**

An introduction to astronomy beyond the Solar System. Topics include the birth and death of stars, black holes, the structure of the Milky Way Galaxy, galactic evolution, the Big Bang, the possible fate of our universe, and the possibilities of life in the universe. Lectures are supplemented by selected readings, planetarium presentations, and telescopic observations.

Prerequisite: MATH 123 College Algebra or permission of instructor.

## **EARTH SCIENCE COURSE DESCRIPTIONS**

### **EASC 131 Conversations with the Earth: An Introduction to Geology (Gen. Ed. Domain II-B)**

An introduction to how the earth's systems - the rocks beneath one's feet, the oceans in which one swims, and the air surrounding - interact to form the hospitable planet Earth. Designed for students not majoring in the sciences, the course examines how human actions are fundamentally altering the processes which have shaped the earth over its 4.5 billion year history. In the first part of the course, students consider the responsibility that each generation has to leave a habitable climate for the next and, in the second part, they examine the earth system, how that system evolved over time, and the system's interactions with human society. Students learn how the actions of one generation affect the climate during the lifetimes of subsequent generations. **Note:** Credit cannot be received for the course if preceded by GEOL 231 Physical Geology or GEOL 232 Historical Geology: The Evolution of Earth and Life Through Deep Time.

Prerequisite: MATH 095 General Mathematics (may be taken concurrently) or a satisfactory score on the mathematics placement examination.

### **EASC 241 Introduction to Meteorology (Gen. Ed. Domain II-B)**

A focus on the acquisition of an understanding of the phenomenon of weather and the behavior of the Earth's atmosphere. The underlying physical principles required as the foundation for this understanding are introduced as needed. Topics that are covered include the origin and composition of the Earth's atmosphere, the ozone problem, global warming, cloud and precipitation formation, types of fog, causes of winds, air mass and frontal weather, air pollution and acid rain, thunderstorms, tornadoes, hurricanes, and weather forecasting.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

### **EASC 246 Oceanography (Gen. Ed. Domain II-B)**

An introduction to the structure and origin of ocean basins; the origin and chemistry of seawater; the physical dynamics of the sea including oceanic circulation, waves, and tides; geology of coastal areas; some marine ecology; management practices for coastal and oceanic environments. Several field trips supplement lectures. This course is designed for all students interested in the oceans and their preservation.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

### **EASC 450 Seminar in Earth Science**

A capstone seminar for the earth science major focusing on the mass and energy flows linking Earth's sub-systems and how those flows have shaped and are shaped by life. There is an emphasis on reading topical articles from the peer-reviewed literature. Students are expected to lead discussions of these articles.

Prerequisite: Completion of at least five (5) geology, astronomy, and/or earth science courses, or permission of instructor.

### **EASC 490 Independent Study in Earth Sciences**

An opportunity to continue to study a topic in greater depth or to explore topics or problems in the earth sciences that are new to the student. Admission to this course is open only to juniors and seniors who are Earth Science minors and who have an overall QPA of 2.70. Admission must be approved by the supervising faculty member and the department chair.

## **ENGINEERING COURSE DESCRIPTIONS**

### **EGNR 101 Introduction to Engineering**

An introduction to engineering methods, specifically for student in the pre-engineering program. Students develop a basic understanding of the engineering design process, including problem solving, research, computation, process design, evaluation criteria and communication that provides the foundation for all future engineering courses. The students become cognizant of current issues that arise at the intersection of technology and society. In addition, students also explore the various types of engineering and career paths available to them.



### **EGNR 201 Engineering Mechanics**

An introduction to statics and dynamics in engineering. Presentation of the concepts of static equilibrium for particles and rigid bodies is followed by discussion of the determination of external and internal forces for structures such as trusses and frames. Moments of inertia, centroids of plane areas, free-body diagrams, and basic concepts of friction are examined. Additional topics include: kinematics, focusing on patterns of motion in space and the effects of forces on motion; work and energy, focusing on potential and kinetic energy, kinetic friction, and conservation of energy; and linear spring/mass systems, examined for effects of free, damped, and torsional mechanical vibration. Analyses of statics and dynamics include use of software tools such as MATLAB and 3-D CAD software.

Prerequisites: EGNR 101 Introduction to Engineering, MATH 219 Calculus I, and PHYS 211 Principles of Physics I.

## **GEOLOGY COURSE DESCRIPTIONS**

### **GEOL 231 Physical Geology (Gen. Ed. Domain II-B, Lab)**

A study of the nature and origin of the minerals and rocks composing the Earth; the geologic evolution of surface features (scenery) taking into account the underlying rock types and structures as well as the surface effects of glaciers, oceans, rivers, volcanoes, and earthquakes; introduction to geologic aspects of environmental issues; and the geology of the solar system. Numerous field trips supplement the lectures and labs. Designed for any students wanting to learn more about the formation of landscapes and the limitations of earth resources.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

### **GEOL 232 Historical Geology: The Evolution of Earth and Life Through Deep Time (Gen. Ed. Domain II-B, Lab)**

An examination of how Earth and life have evolved over the 4,500 million years of Earth's history. Topics include the formation of Earth and the Moon and the boundary conditions that this formation places on Earth's subsequent history. Students learn first-hand how geologists measure absolute time in rocks and how stratigraphic principles allow the calibration of relative time. With these tools in hand, students examine the intertwined evolution of Earth's life and geology and how the two have combined to produce habitable climates in surprisingly many places. Students use the fossil record and genetic data to study the macro-evolutionary processes that have led to the diversity of life on the planet with considerable focus on the evolution of *Homo sapiens*. The course concludes with a peek into the future and the "predictive history" of the next geological period, the Anthropocene. **Laboratory (3 hours).**

Prerequisites: GEOL 231 Physical Geology.

### **GEOL 233 Environmental Geology**

An examination of the dynamic relationships among geologic processes, population, and society. Topics include natural disasters (earthquakes, volcanoes, and landslides), geologic resources (water, soil, minerals, and energy) and the local and global impact of human interaction with Earth (air, soil, and water pollution, resource extraction and consumption, coastal erosion, and climate change). Students become familiar with "best practice" policies for adapting to geologic impacts on the environment and explore case studies to supplement the lectures.

Prerequisite: MATH 123 College Algebra (may be taken concurrently) or a satisfactory score on the mathematics placement examination.

## **PHYSICAL SCIENCE COURSE DESCRIPTIONS**

### **PHSC 109 Introduction to Physical Science (Gen. Ed. Domain II-B, Lab)**

An introduction to the fundamental behavior of matter and energy. Topics include the nature of scientific investigation, properties of matter, motion, energy conservation, heat, wave motion, magnetism and static electricity, nuclear fission and fusion, and the relationships among the different areas of physical science. This course is intended for Elementary Coordinate Education majors and includes a weekly two-hour laboratory component. Note: Students will not receive credit for this course after having taken PHYS 201 Introductory Physics or PHYS 211 Principles of Physics I.

Prerequisites: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination and status as a Coordinate Education major.

## PHYSICS COURSE DESCRIPTIONS

### **PHYS 111 Physics, Nature, and Society (Gen. Ed. Domain II-B, Lab)**

A study of conceptual physics, with an emphasis on the discovery of the hidden patterns in nature that govern everyday phenomena, from motion and forces to energy and conservation laws. The complex relationship between science, technology, and society is explored, including discussions of the relationship between humans and nature, and the use and abuse of science in society, with particular emphasis on environmental problems such as global warming. NOTE: Students will not receive credit for this course after having taken PHYS 201 Introductory Physics or PHYS 211 Principles of Physics I.

Prerequisite: MATH 095 General Mathematics or a satisfactory score on the mathematics placement examination.

### **PHYS 201 Introductory Physics (Gen. Ed. Domain II-B, Lab)**

An introduction to those concepts of physics of particular relevance to the life and earth sciences. The topics covered, all at a non-calculus level, include motion, scaling, energy and its conservation, fluids, wave motion, electrostatic force, electrical currents, nuclear radiation and its effects and uses. The course includes a weekly three-hour laboratory component.

Prerequisite: MATH 200 Precalculus.

### **PHYS 211 Principles of Physics I (Gen. Ed. Domain II-B, Lab)**

The study of motion, Newton's Laws, work and energy, momentum, gravitation, and the rotation of rigid bodies. Designed for students majoring in the sciences, mathematics, and pre-engineering. Includes a weekly, three-hour laboratory component.

Prerequisite: MATH 219 Calculus I (may be taken concurrently).

### **PHYS 212 Principles of Physics II**

A continuation of Principles of Physics I, involving the study of wave motion, sound, electricity and magnetism, d.c. circuits, and electromagnetic waves. Designed for students majoring in the sciences, mathematics, and pre-engineering. Includes a weekly, three-hour laboratory component.

Prerequisite: PHYS 211 Principles of Physics I.

### **PHYS 272 Modern Physics**

An algebra-based survey of important topics in modern physics. It begins with Einstein's Special and General Theories of Relativity, including phenomena such as time dilation, black holes and gravitational lensing. Quantum physics is introduced via discussions of the Heisenberg Uncertainty Principle, the wave nature of matter and the dual nature of light, and is applied to the physics of atoms and molecules. Nuclear physics and elementary particle physics are introduced at the end, with a view to building a basic understanding of radioactivity, fundamental forces, and the current search for the unification of physical laws.

Prerequisite: PHYS 201 Introductory Physics or PHYS 211 Principles of Physics I.

### **PHYS 490 Directed Study in Physics**

An opportunity to continue to study a topic in greater depth or to explore topics or problems in the earth sciences that are new to the student. Admission to this course is open only to juniors and seniors who are Physics minors and who have an overall QPA of 2.70. Admission must be approved by the supervising faculty member and the department chair.

# Political Science

**Chair: Christopher P. McCarthy-Latimer**

Associate Professor: Christopher P. McCarthy-Latimer

Assistant Professor: Joesph Coelho

Pre-Law Advisor: Christopher P. McCarthy-Latimer

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirements

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-C (Global Competency, Ethical Reasoning, and/or Human Diversity) requirement is satisfied through the completion of the Politics major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## POLITICAL SCIENCE MAJOR (UPOG)

### Departmental Requirements for Politics Major:

The Political Science major consists of twelve (12) courses and one (1) required/related general education course.

#### Introductory Core Courses (required):

POSC	110	Introduction to American Politics
POSC	120	Introduction to World Politics

#### Required Major-Related course:

MATH	117	Introduction to Statistics.
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#### Intermediate Courses (select two):

POSC	211	Political Theory: Justice, Law, and Order
POSC	216	Film and Politics
POSC	220	The Politics of Globalization
POSC	223	Bureaucratic Politics and Power
POSC	250	American Legal Systems
POSC	260	Comparative Political Systems
POSC	270	Race, Politics, and the Law
POSC	272	Gender, Politics, and the Law

*Students majoring in Political Science should complete POSC 110 Introduction to American Politics and POSC 120 Introduction to World Politics during their freshman year. All above courses must be completed prior to the end of the sophomore year.*

**Advanced core courses (required):**

POSC	316	United States Constitutional Law: Civil Liberties
POSC	337	Legislative Politics and Policy
POSC	341	The Presidency: Politics and Administration

**Advanced courses (select three):**

POSC	313	American Political Thought
POSC	325	Public Management
POSC	327	Elections and Campaign Strategy
POSC	328	Public Budgeting and Management
POSC	329	Public Policy Analysis
POSC	342	Formation and Conduct of United States Foreign Policy
POSC	365	Latin American Politics

**One Elective:**

Any course offered by the Political Science Department

**Seminar:**

POSC	425	Seminar in Political Science
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**MINORS****MINOR IN LAW AND POLITICS (5 COURSES)**

The minor in Law and Politics is designed to provide undergraduate students with a structured program of study in judicial and governmental processes. U.S. public policy is constrained by our legal system, and conversely, our legal system is sometimes modified by political interests. This minor focuses on the interaction of law and politics.

POSC	110	Introduction to American Politics
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**Plus four (4) courses from the following:**

POSC	211	Political Theory: Justice, Law, and Order
POSC	206	Constitutional Law: Powers of the Government
POSC	250	American Legal Systems
POSC	300	Moot Court Symposium
POSC	315	Judicial Politics and Policy
POSC	316	United States Constitutional Law: Civil Liberties
POSC	270	Race, Politics, and the Law
POSC	272	Gender, Politics, and the Law
POSC	450	Internship in the Judicial System

**MINOR IN POLITICAL SCIENCE (5 COURSES)**

POSC	110	Introduction to American Politics
POSC	120	Introduction to World Politics

Three (3) other courses above the 100-level acceptable for the major, at least one of which must be at the 300-level or above.

**MINOR IN PUBLIC ADMINISTRATION (5 COURSES)**

The Public Administration minor addresses the purpose, function and behavior of public sector agencies and the management of government and non-profit organizations. It addresses the environment in which public administration operates and provides students with the tools and techniques public sector managers employ to develop, promote, implement, and assess public policy and programs.

POSC	110	Introduction to American Politics
POSC	223	Bureaucratic Politics and Policy
POSC	229	Public Policy Analysis
POSC	325	Public Management
POSC	335	Public Personnel Management

**POLITICAL SCIENCE COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)**

Courses			Domain(s)
POSC	110	Introduction to American Politics	III-B
POSC	120	Introduction to World Politics	III-C
POSC	200	Model United Nations	III-B
POSC	206	Constitutional Law: Powers of the Government	III-A
POSC	213	Political Parties and Interest Groups	III-B
POSC	216	Film and Politics	III-C
POSC	220	The Politics of Globalization	III-C
POSC	223	Bureaucratic Politics and Power	III-A
POSC	229	Public Policy Analysis	III-B
POSC	250	American Legal Systems	III-B
POSC	270	Race, Politics, and the Law	III-A
POSC	272	Gender, Politics, and the Law	III-A
POSC	260	Comparative Political Systems	III-C
POSC	269	Building Peace After Conflict	III-C

**POLITICAL SCIENCE COURSE DESCRIPTIONS*****Lower Level*****POSC 110 Introduction to American Politics (Gen. Ed. Domain III-B)**

An introduction to American governmental institutions and the political process. Among the topics included are the political culture and socialization, political participation, the media, social movements and minority politics, and interest groups and political parties. This course fulfills the requirement to study the United States and Massachusetts constitutions.

**Note:** Credit will not be given for this course after completing 62.101 Introduction to American Politics I, 62.102 Introduction to American Politics II, or 62.103 Survey of American Politics.

**POSC 120 Introduction to World Politics (Gen. Ed. Domain III-C)**

An introduction to the field of international relations and the debates and dilemmas surrounding our global system as we enter the twenty-first century. Concentration is on the importance of the nation-state in global issues. Focus is also on emerging actors and alternative perspectives. Issues such as nationalism, globalization, power structure, economic development, and sustainability are examined.

***Intermediate Level*****POSC 200 Model United Nations (Gen. Ed. Domain III-B)**

An introduction to the activities of the United Nations, as well as an understanding of the modalities of international diplomacy. It focuses on current events, pressing international issues, the basics of international law and some of the protocol and procedures of diplomacy. All of this assists students in preparing for their roles as distinguished diplomats at various regional or national Model UN conferences. Travel to compete at United Nations in New York City is required. *Note: This course is offered in fall semesters only.*

**POSC 206 Constitutional Law: Powers of the Government (Gen. Ed. Domain III-A)**

A study of the role of judicial supremacy, judicial restraint, and judicial activism concerning the powers of the government in the American political system and the processes by which they have evolved in the United States. The course is designed to give students an understanding of the role of constitutional law in the American polity, the interrelationships between law, politics, and economics, and the role of courts, especially the United States Supreme Court, in the process.

**POSC 211 Political Theory: Justice, Law, and Order (Gen. Ed. Domain III-A)**

An historical approach to the study of the ideas of justice, law, and order as they evolved in Western tradition from Hammurabi's code and Plato's Republic in ancient times to such twentieth-century analyses as John Rawls' A Theory of Justice. This course integrates information from the disciplines of politics, history, and philosophy. This course fulfills the requirement to study the United States and Massachusetts constitutions.

**POSC 213 Political Parties and Interest Groups (Gen. Ed. Domain III-B)**

An analysis of the characteristics, roles, and status of American political parties and interest groups. Attention is focused on the strengths and weaknesses of the party system, alternative forms of political organization, and society at the present. *Note: Students may not receive credit for both this course and POSC 326 Political Parties and Interest Groups.*

**POSC 216 Film and Politics (Gen. Ed. Domain III-C)**

An examination of the relationship between film and American politics. This course examines how film depicts and influences American political culture, values, and institutions with emphasis on the relationship between film and the politics of gender, class, and race. Students are required to review and analyze film texts in relationship to the scope of the course.

Prerequisite: ENGL 110 Expository Writing.

**POSC 220 The Politics of Globalization (Gen. Ed. Domain III-C)**

An introduction to the political, economic and social impacts that global interdependence has on the structure and function of nation-state, international organizations, and international society. The course explores how political interdependence (supranational organizations, global governance) and economic interdependence (global flow of goods, services, capital and labor) affect the international dynamics of political values, culture, and ideas.

**POSC 223 Bureaucratic Politics and Power (Gen. Ed. Domain III-A)**

An introduction into bureaucratic organizations servicing the public sector and how these organizations came to exist. The course provides an analysis of the politics, power, and behavior of governmental bureaucracies and their impact on individuals and society. Topics include the historical growth of bureaucratic authority and power, organizational behavior, administrative leadership, decision-making, the politics and administration of program management, and the concern for administrative responsibility in a democratic society.

**POSC 229 Public Policy Analysis (Gen. Ed. Domain III-B)**

An analysis of the policy process emphasizing the response of officials to problems, available policy alternatives, the way officials choose and implement programs and the effect of these programs. The aim of this course is to provide policy researchers with a set of conceptual frameworks for analyzing the political environment of public policy and policy research, and to practice forming effective strategies for policy analysis, program evaluation, policy design, and advocacy. The concepts, skills, and analytical tools students learn in the course rest upon a foundation of economic principles, institutional analysis and, to a lesser extent, political and social psychology. Students identify patterns of behavior and outcomes, ways of thinking about those patterns and outcomes, and methods of analysis that facilitate understanding and prediction, and, ultimately, the shaping of strategies to improve the success of policy researchers in their professional life. A substantive topic is used to illustrate the basic concepts and principles of the public policy process.

**POSC 250 American Legal Systems (Gen. Ed. Domain III-B)**

A study of the origins and essentials of the common law, statutes, constitutions, and court decisions in the United States. Emphasis is on legal reasoning and case analysis to promote legal problem-solving skills. Topics include criminal law and procedures, property law, contract law, and the law of torts. This course fulfills the requirements to study the United States and Massachusetts constitutions.

**POSC 260 Comparative Political Systems (Gen. Ed. Domain III-C)**

A systematic study and comparison of the world's political systems, political institutions, and political culture and practices. Topics include the state, the distribution and use of power, the struggle for democracy and the political economy.

**POSC 262 Public Budgeting & Management (Gen. Ed. Domain III-B)**

A study of public budgeting and management and a core aspect of the political system. Students consider the societal, cultural, political, managerial, economic and fiscal factors that affect budgetary revenue and expenditure decisions. The course is designed to provide students with knowledge of budgetary systems, analysis, and techniques and focuses on budgeting as a management function operating within the political system.

**POSC 269 Building Peace After Conflict (Gen. Ed. Domain III-C)**

An examination of the theoretical and practical issues surrounding peace-building and by extension conflict resolution within contemporary conflicts. The course explores some of the current thinking and practice in the fields of conflict resolution and peace-building and addresses questions concerning the causes of conflict and the various strategies (both western and non-western) used to building peace in war-torn countries.

Prerequisite: POSC 120 Introduction to World Politics.

**POSC 270 Race, Politics and the Law (Gen. Ed. Domain III-A)**

A critical examination of race in the political and legal systems and how they have evolved historically. The objective is to gain a better understanding of how the legal and judicial systems have historically defined and employed racial categories and how this influences the present. Topics include racial servitude, segregation, equal protection, employment discrimination, and the Civil Rights Acts. Students consider how national, state, and local governments in the United States have shaped the lives of African Americans, Latino Americans and Asian Americans through the institutionalization of discrimination and the application of policies based on racist assumptions with the primary focus on how African Americans have used the political and legal systems to respond to prejudice, discrimination, and racism.

**POSC 272 Gender, Politics and the Law (Gen. Ed. Domain IIIAC)**

A critical examination of gender in the political and legal systems and how they have evolved historically. The objective is to gain a better understanding of how the legal and judicial systems have historically dealt with gender issues and how this influences the present. Throughout the course, students examine widely divergent perceptions of gender to provide a more informed assessment of the political world and their legal implications. Topics include gender and servitude, comparable worth, due process, equal protection, employment discrimination and Title IX.

**POSC 290 Topics in Political Science**

An exploration of an area of political science offered on occasion at the discretion of the department. Determination of where the course fits in the academic program will be made on a case-by-case basis.

**Advanced Level Courses****POSC 300 Moot Court Symposium**

A study of the role of judicial supremacy, judicial restraint, and judicial activism of the government in the American political system and the processes by which they have evolved in the United States. The course is designed to give students an understanding of the role of law in the American polity. Students prepare for participation in an undergraduate moot court competition. Discussion of court cases, brainstorming sessions regarding the development of arguments, sessions addressing public speaking and style, and practice sessions in which students present arguments, respond to questioning, and provide feedback to other students are included.

Prerequisites: ENGL 110 Expository Writing, math core, and Sophomore standing.

**POSC 313 American Political Thought**

A focus on the nineteenth and early twentieth centuries in an attempt to understand American political thought in terms of “national mythology.” Readings are primary sources.

**POSC 315 Judicial Politics and Policy**

The roles of judges, lawyers, law enforcement officials, and litigants in the judicial system. The process used to make legal decisions and the effect of these decisions will be examined. Finally, the courts’ relations with other political institutions are analyzed.

**POSC 316 United States Constitutional Law: Civil Liberties**

A study of the role of judicial supremacy, judicial restraint, and judicial activism concerning civil liberties in the American political system and the processes by which they have evolved.

**POSC 325 Public Management**

A study of organizational management, administrative behavior, and public policy issues. The course is structured around the case method approach. Students’ participation in the form of role playing and game simulation is highly emphasized.

**POSC 327 Elections and Campaign Strategy**

An analysis of the changing nature of electoral politics resulting from such factors as the decline of parties, reforms, finance laws, the media, and voting behavior. The course focuses upon the techniques of campaign management to include strategy, fund raising, the media, polling, and the new technology. Students participate in a campaign and conduct an election survey.

**POSC 329 Public Policy Analysis**

An analysis of the policy process emphasizing the response of officials to problems, available policy alternatives, the way officials choose and implement programs and the effect of these programs. A substantive topic is used to illustrate the basic concepts and principles of the public policy process.

**POSC 335 Public Personnel Management**

A focus on organizational theory, organizational structure, staffing, job classification, unionism, collective bargaining, and personnel productivity and performance evaluation with respect to public sector management. Managerial tools related to recruitment, personnel supervision, organizational control, and leadership are emphasized. Case studies, role playing, and simulation are used to engage the student in the practical application of theories and practices of personnel management.

**POSC 337 Legislative Politics and Policy**

An examination of the selection, organization and decision-making processes found in Congress and the state legislatures. The relationship of the legislature to the President, bureaucracy, interest groups, and judicial branch also are discussed. Students participate in a simulation of the process by which bills are enacted into law.

**POSC 390 Topics in Political Science**

An exploration of an area of political science offered on occasion at the discretion of the department. Determination of where the course fits in the academic program will be made on a case-by-case basis.

**POSC 341 The Presidency: Politics and Administration**

A description and analysis of the President as a major actor in the American political system. It investigates the political stakes, strategies, and resources of the President with respect to other political actors and institutions. The course focuses upon the sources and limitations of Presidential power and the nature of Presidential decision making.



**POSC 342 Formation and Conduct of United States Foreign Policy**

An analysis of the principal decision-making processes that affect, and have affected, the formulation and implementation of American foreign policy since World War I. Emphasis is on the major agencies and institutions responsible for the formulation and execution of American foreign policy decisions. A case study approach is followed.

**POSC 365 Latin American Politics**

An examination of the nature of governance and politics in Latin America. This course provides an in-depth analysis of Central and South American countries, political histories, institutions, governance and culture. Topics may include ideology, revolution, class structure, distribution of wealth and power, and political and economic development.

**POSC 425 Seminar in Political Science**

An advanced study of politics under the direction of a member of the faculty. The theme for the seminar, as well as for research topics, papers, projects, and/or student presentations, is determined by the course instructor.

Prerequisite: Completion of nine (9) or more Political Science courses, MATH 117 Introduction to Statistics, and Approval of the Department Chair. Open to Political Science majors only.

**POSC 450 Internship in the Judicial System**

A supervised internship experience in the judicial system combined with an authorized field study assignment of a minimum of ten hours per week for the semester. Does not count toward the Politics major.

Prerequisite: POSC 250 American Legal Systems and permission of instructor. For details see Chair of the Political Science Department one semester prior to registration.

**POSC 490 Independent Study in Political Science**

A politics major whose QPA in the major is no less than 3.00 and who has completed at least six courses in the Department of Political Science may apply to the Department for a course in Independent Study under the supervision of a member of the Department. This application should be made no later than the end of the third week of the preceding semester. The application must include a detailed proposal outlining either an extensive reading program or a research project. The Department will respond to the application usually within four weeks.

**POSC 495 Internship in Political Science**

A supervised work experience in politics or government combined with a field study assignment.

Prerequisite: A 3.00 or higher GPA in the major plus completion of six courses in the Department. See Department Chair for details of specific requirements one semester prior to registration.

# Psychology and Philosophy

**Chair: Joseph D'Andrea**

Professors: Paul Bruno, Robert Donohue,  
Anna Flanagan, T. Bridgett Perry Galvin,  
Pamela Ludemann, Cynthia A. Prehar

Associate Professors: Joseph D'Andrea, Paul Galvin,  
Deborah McMakin, Dawn Vreven

Assistant Professors: Michael Greenstein, Phoebe Lin,  
Margaret Obaid, Nicole Rossi, Charles Sachs

Instructor: Tamara Nelson

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain III-B (Perspectives on the Contemporary World) requirement is satisfied through the completion of the Psychology major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. PSYC 101 General Psychology or PSYC 200 Psychology of Development is a prerequisite for all other psychology courses except where otherwise noted. Students should refer to course descriptions in the department listings for prerequisite requirements.

## Grade Recommendations

The Psychology Department requires that all Psychology majors achieve a minimum grade of C- (1.70) in PSYC 101 General Psychology (or PSYC 200 Psychology of Development as required for Coordinate Education majors) before enrolling in PSYC 291 Research I: Descriptive and Correlational Methods. The Department also requires that all Psychology majors achieve a minimum grade of C- (1.70) in the mathematics requirement (MATH 117 Introduction to Statistics) before enrolling in PSYC 291 Research I: Descriptive and Correlational Methods. These courses provide the essential foundation for subsequent psychology courses, and a basic grasp of the concepts introduced in these courses is critical. Finally, a minimum grade of C- (1.70) is required in each of the two (2) capstone courses that the student selects (PSYC 450 Empirical Research Thesis in Psychology, PSYC 460 History and Systems of Psychology, PSYC 480 Psychology Seminar, PSYC 495 Internship in Psychology).

## PSYCHOLOGY MAJOR

### Departmental Requirements for Major:

#### Core Department Courses (5):

PSYC 101 General Psychology **or**  
\*PSYC 200 Psychology of Development

*Note: Only Coordinate Education majors may substitute PSYC 200  
Psychology of Development for PSYC 101 General Psychology.*

PSYC 291 Research I: Descriptive and Correlational Research  
Methods

PSYC 391 Research II: Quasi-Experimental and Experimental Research Methods

**Two (2) of the following four (4) 400-level Capstone courses:**

PSYC 450 Empirical Research Thesis in Psychology  
 PSYC 460 History and Systems in Psychology  
 PSYC 480 Psychology Seminar  
 PSYC 495 Internship in Psychology

**Major-related core courses (3):**

BIOL 142 Introduction to Human Biology **or**  
 CHEM 131 Science - Environment and Health  
 MATH 117 Introduction to Statistics  
 PHIL 102 Introduction to Ethics: Why Be Moral? **or**  
 PHIL 105 Introduction to Political and Social Philosophy **or**  
 PHIL 118 Introduction to the Philosophy of Science

*Each of these major-related core courses also may be used to meet general education requirements.*

**CONCENTRATION IN GENERAL PSYCHOLOGY (UPSG)**

**Seven (7) Psychology Courses:**

**Domain Courses (4):**

All Psychology majors are required to complete one (1) course in each of the following four (4) domains of psychological knowledge:

***Biological Domain***

**One (1) of the following:**

PSYC 225 Biopsychology  
 PSCY 245 Health Psychology  
 PSYC 280 Sensation and Perception

***Developmental Domain***

**One (1) of the following:**

PSYC 201 Child Development  
 PSYC 212 Adolescent Development  
 PSYC 231 Adult Development

***Learning and Cognition Domain***

**One (1) of the following:**

PSYC 271 Principle of Behavior Modification  
 PSYC 236 Psychology of Learning  
 PSYC 263 Cognitive Psychology

***Sociocultural Domain***

**One (1) of the following:**

PSYC 215 Personality Psychology  
 PSYC 224 Social Psychology

PSYC	259	Cultural Psychology
PSYC	286	Psychology of Women

**Upper-Level Electives (3):**

All majors will complete **three (3) additional upper-level Psychology courses** (i.e., 300- and/or 400-level). The choice of upper-level courses is up to the student. It is recommended that students consult with their advisors in the selection of upper-level course options.

**Psychology majors who are also Coordinate Majors in Education**

Coordinate majors in Education who major in Psychology must take PSYC 200 Psychology of Development, a course required for provisional teaching certification.

Psychology majors who do not complete the Coordinate Major in Education or a Secondary Education Minor may use PSYC 200 Psychology of Development as a psychology elective. Any student in this situation will also need to complete PSYC 101 General Psychology if graduating as a Psychology major.

**MINORS**

**MINOR IN PSYCHOLOGY (5 COURSES)**

The following courses are required to complete this minor:

PSYC	101	General Psychology
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*Four (4) additional Psychology courses in at least three (3) of the four (4) domains:*

**Biological Domain**

PSYC	225	Biopsychology
PSCY	245	Health Psychology
PSYC	280	Sensation and Perception

**Developmental Domain**

PSYC	201	Child Development
PSCY	212	Adolescent Development
PSYC	231	Adult Development

**Learning and Cognition Domain**

PSYC	271	Principle of Behavior Modification
PSCY	236	Psychology of Learning
PSYC	263	Cognitive Psychology

**Sociocultural Domain**

PSYC	215	Personality Psychology
PSCY	224	Social Psychology
PSYC	259	Cultural Psychology
PSYC	286	Psychology of Women

### MINOR IN PHILOSOPHY (5 COURSES)

The following courses are required to complete this minor:

PHIL 103 Introduction to Logic

Four (4) additional philosophy courses, two (2) of which must be at the 200-level or above.

### MINOR IN NEUROSCIENCE (5 COURSES)

Neuroscience is the study of the nervous system, the cells and tissues of which it consists; the thoughts, emotions and behaviors that it manifests and the way it changes due to stimuli from both inside and outside the body. It is an interdisciplinary science that combines aspects of Biology, Psychology, Philosophy, and Chemistry. Neuroscientists examine the development, structure and function of the nervous system, what happens in disease states and mental illness and how different compounds can alter its activity.

Students interested in a minor in Neuroscience should see the chair of either the Biology Department OR Psychology and Philosophy Department.

*Note: Only one (1) course may be taken within the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements.*

#### Four (4) Required Courses:

BIOL 142 Introduction to Human Biology (Domain II-B, Lab) **or**  
 PSYC 101 General Psychology (Domain III-B)

*NOTE: Student who are not Biology or Psychology majors must take both courses.*

NEUR 225 Biopsychology\*  
 PHIL 222 Bioethics (Domain III-C)  
 PSYC 263 Cognitive Psychology\* or  
 BIOL 325 Neurobiology\*

#### One (1) Elective Courses:

*From the following list:*

BIOL 320 Animal Behavior\*  
 BIOL 417 Endocrinology\*  
 NEUR 348 Cognitive Neuropsychology\*  
 NEUR 380 Neuropharmacology\*  
 NEUR 490 Independent Study in Neuroscience\*  
 NEUR 495 Internship in Neuroscience\*  
 PSYC 245 Health Psychology\*  
 PSYC 280 Sensation & Perception\*

*\* Indicates course has a prerequisite.*

### COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Philosophy Courses			Domain(s)
PHIL	101	Invitation to Philosophy	I-B
PHIL	102	Introduction to Ethics: Why be Moral?	III-C
PHIL	103	Introduction to Logic	II-A

PHIL	105	Introduction to Political and Social Philosophy	III-B
PHIL	118	Introduction to Philosophy of Science	I-B
PHIL	131	Critical Reasoning	II-A
PHIL	201	History of Ancient Philosophy	III-A
PHIL	222	Bioethics	III-C

**Psychology Courses Domain(s)**

PSYC	101	General Psychology	III-B
PSYC	200	Psychology of Development	III-B

**NEUROBIOLOGY COURSE DESCRIPTIONS**

**NEUR 348 Cognitive Neuropsychology**

An advanced study of human cognitive processes and the brain imaging techniques used to measure them. Topics include hemispheric specialization, consciousness, object recognition, working memory, attention, and brain damage/dysfunction. Clinical neuropsychology and comparative neuropsychology are introduced. The course emphasizes the relationship between theory and experimental research.

Prerequisites: Completion of the Biological Domain and one (1) of the other three (3) remaining Domains or a 200-level Biology laboratory course; or permission of the instructor.

**PHILOSOPHY COURSE DESCRIPTIONS**

**PHIL 101 Invitation to Philosophy (Gen. Ed. Domain I-B)**

A critical inquiry into life, death, and the meaning of human existence. Issues such as the nature of reality, knowledge, the problem of truth, the existence of God, free will, and justice are examined from varying perspectives and sources: Western, global, classical, or modern.

**PHIL 102 Introduction to Ethics: Why Be Moral? (Gen. Ed. Domains III-C)**

An exploration of moral reasoning, and the claims of morality on self and society through an assessment of ethical theories, both classical and modern. The course considers topics such as human sexuality and the preservation of integrity in human decision making. The dynamics of self and society and subjects of social responsibility are pursued by focusing attention on issues such as freedom and justice; rights and duty; race, gender, and class; and the meaning of work.

**PHIL 103 Introduction to Logic (Gen. Ed. Domain II-A)**

A study of fundamental topics in logic: classical logic, truth functional logic, inductive reasoning, and informal fallacies. The study of logic is presented as a fascinating mental exercise and as the acquisition of skills essential to clear and reasonable thought and discourse.

**PHIL 105 Introduction to Political and Social Philosophy (Gen. Ed. Domains III-B)**

A study of conflicting philosophical views about politics and social institutions. Salient historical and contemporary theories including those of gender, race, and class are analyzed and discussed. Attention is given to the philosophical presuppositions directing socio-political institutions.

**PHIL 118 Introduction to Philosophy of Science (Gen. Ed. Domain I-B)**

An introduction to commonly discussed philosophical issues about science, such as the matter in which scientific theories are justified. The course makes reference to specific episodes in the history of science, such as the adoption of the Copernican view that the earth travels around the sun, and the rejection of some ideas of classical physics in favor of modern relativity theory and quantum mechanics.

**PHIL 131 Critical Reasoning (Gen. Ed. Domain II-A)**

A consideration of the methods and criteria of natural, informal reasoning. The primary concern is with the techniques of reasoning embedded in language. Consideration is given to methods of analysis and criteria of good argument.

**PHIL 201 History of Ancient Philosophy (Gen. Ed. Domain III-A)**

The study of the development of philosophical thought beginning with Thales. Attention is given to the pre-Socratics and their influence on Plato. The main emphasis is on Plato and Aristotle.

Prerequisite: One introductory philosophy course.

**PHIL 203 History of Modern Philosophy**

The main lines of philosophical thought from Francis Bacon through Kant. Primary attention given to the Continental Rationalists, British Empiricists, and the Kantian synthesis.

Prerequisite: One introductory philosophy course.

**PHIL 214 Philosophy of Art**

An examination of the role of art in human life, the nature of criticism, and the justifiability of critical judgment.

Prerequisite: One introductory philosophy course.

**PHIL 221 Contemporary Philosophy**

Analysis of recent philosophical trends and their major representatives: instrumentalism (Pierce, James, Dewey), existentialism (Jaspers, Heidegger, Sartre), logical and linguistic analysis (Russell, Wittgenstein, Carnap, Ayer, Ryle).

Prerequisite: One introductory philosophy course.

**PHIL 222 Bioethics (Gen. Ed. Domain III-C)**

An examination of moral issues in modern biology. Major theories of ethics, as well as biological aspects of development, genetics, genetic engineering, and the environment, are investigated. Themes such as brain death and euthanasia, abortion, scarcity of medical resources, reproductive control, patient confidentiality, and environmental issues are explored.

Prerequisite: One college biology course.

**PHIL 226 Nineteenth-Century Philosophy**

A study of Idealism, Materialism, Empiricism (Mill), and Existentialism (Kierkegaard and Nietzsche).

Prerequisite: One introductory philosophy course.

**PHIL 234 Environmental Ethics**

A critical inquiry into the human relationship with nature. The course will emphasize the historical and thical changes in the philosophy of nature and the natural world. Way in which attitudes and values regarding nature are grounded in cultural, religious, and societal beliefs are also disclosed.

Prerequisite: One (1) introductory philosophy course or sophomore status.

**PHIL 490 Independent Study in Philosophy**

Topic(s) of philosophical interest to be chosen by the student.

Prerequisite: Two introductory courses or one introductory and one intermediate course in philosophy.

**PSYCHOLOGY COURSE DESCRIPTIONS**

**PSYC 101 General Psychology (Gen. Ed. Domain III-B)**

An introduction to the basic concepts of psychology including research methods in psychology, biological bases of behavior, learning, memory, development, social psychology and psychopathology. Students are exposed to principles, issues, theories and research findings in these areas.

**PSYC 200 Psychology of Development (Gen. Ed. Domain III-B)**

An overview of major theories of development from the prenatal period through adolescence. Topics include the work of Piaget, Erikson, Kohlberg, Bronfenbrenner, Vygotsky, and brain research. Normative patterns in areas such as physical growth, cognition, morality, emotion, language acquisition, and socialization are addressed within the cultural context of the family. Interrelationships between cognitive developments and other developmental domains are stressed. Discussions and field applications encourage the critical evaluation of theoretical and normative information.

Prerequisites: Sophomore status and status as a Coordinate Education major or Education minor.

**PSYC 201 Child Development**

An introduction to the study of the child from conception to the onset of adolescence. Basic concepts and theories of child development are studied, particularly those relevant to the psychological processes of perception, cognition, social interaction, and affective and moral development.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 212 Adolescent Development**

An introduction to the study of the adolescent from the onset of puberty to the beginnings of adulthood. Topics include biological changes, identity development, the adolescent's relations with parents and peers, cognitive changes, moral development, achievement, and work issues. Special topics may include sexuality, drug abuse, delinquency, and psychopathology examined in the context of the adolescent's formation of his or her identity. Within each topic of development, current research findings regarding the specific issues of race, class, and gender as they apply to adolescent development are discussed.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 215 Psychology of Personality**

A comprehensive survey of the major classical and contemporary theories of personality. The course includes a critical analysis of how individual differences are assessed within each theoretical framework. Situational and cultural implications for family, work, therapy, and education are considered.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 224 Social Psychology**

An introduction to the factors and processes involved in people's understanding of themselves, others, and social interactions. Attention is given to research in such areas as social perception, gender, group interaction, attitude formation and change, aggression, social influence, interpersonal attraction, prejudice and discrimination, and pro-social behavior with particular emphasis given to differences relating to gender, race, and class.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 231 Adult Development**

An introduction to factors and issues affecting the development of individuals from young adulthood through the senior years. Topics may include developmental changes in sensory and biological processes, cognition, personality, familial and peer relationships, vocational and recreational goals, and bodily and mental health. *Note: Students cannot receive credit for both this course and either both PSYC 213 Psychology of Adult Development and PSYC 214 Psychology of Aging.*

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 236 Psychology of Learning**

An introduction to human learning from early conceptions to current psychological theories. Basic concepts and theories of learning are examined including classical conditioning, instrumental learning, operant conditioning, and social learning theory. Animal studies serve as the background for addressing current research in human behavior.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

**PSYC 245 Health Psychology**

An introduction to the biological, psychological, and social factors related to the promotion of health and the prevention of illness. The body's nervous, endocrine, digestive, and circulatory systems will be explored as well as how they can influence and be influenced by exercise, addiction, diet, stress, and social factors. The reciprocal interaction of the mind and body is emphasized. *Note: Students cannot receive credit for both this course and PSYC 208 Health Psychology.*

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development, or sophomore status.



### **PSYC 259 Cultural Psychology**

An introduction to the importance of culture and ethnicity in explaining what were once considered universal psychological behaviors and processes. This course focuses on topics such as intercultural communication, research methods, cognition, gender, health, emotion, language, personality, abnormal psychology, and developmental processes across cultures and ethnicities. *Note: Students cannot receive credit for both this course and PSYC 340 Cultural Psychology.*

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

### **PSYC 263 Cognitive Psychology**

An introduction to the experimental study of mental processes that underlie perception, attention, memory, reasoning, and problem solving. These processes are considered from a variety of perspectives that may include computational, neuroscientific, parallel processing, and developmental. Emphasis is placed on methodological issues, theoretical interpretations, and practical applications. *Note: Students cannot receive credit for both this course and either PSYC 262 Learning, Memory and Cognition or PSYC 362 Cognitive Psychology.*

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

### **PSYC 271 Principles of Behavior Modification**

A consideration of various applications of learning theory and conditioning principles to social and individual problems. Techniques such as systematic desensitization, aversive conditioning, social modeling, token economies, and self-control procedures (e.g., biofeedback) are described. The application of these techniques is examined for a variety of problems, e.g., anxiety, psychotic and antisocial behaviors, phobias, alcoholism, smoking, and sexual dysfunction.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

### **PSYC 280 Sensation and Perception**

A study of how sensory organs transform physical energy in the environment into the psychological experience of perception. The neurophysiological processes involved in sensation and perception are highlighted. Topics include the structure and function of the visual cortex; color, motion, and depth perception; sound localization; and speech perception.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

### **PSYC 286 Psychology of Women**

An examination of the psychological development of women from birth through maturity. Topics may include biological bases of psychological sex differences; sex roles in work, family, and social relations; the historical context of stereotypes and attitudes toward women; development of women's self concept; and cross-cultural comparisons.

Prerequisite: PSYC 101 General Psychology or PSYC 200 Psychology of Development.

### **PSYC 291 Research I: Descriptive and Correlational Methods**

An introduction to psychology as a science with a focus on descriptive and predictive research methods. Quantitative approaches including observational, survey, and correlational designs are covered, and qualitative approaches may also be introduced. Students conduct empirical research individually and/or in groups. Students develop skills in locating and understanding published research, formulating research questions, collecting data, following ethical guidelines, using statistical software to analyze findings, preparing written APA (American Psychological Association)-style reports, and presenting their research in poster and/or presentation formats. *Note: Students may not receive credit for both this course and PSYC 251 Psychology Research I: Methods.*

Prerequisites: Completion of PSYC 101 General Psychology (or PSYC 200 Psychology of Development) with a minimum grade of C- (1.70), completion of MATH 117 Introduction to Statistics with a minimum grade of C- (1.70), and sophomore status.

**Psychology majors only.**

### **PSYC 304 Psychology of Careers**

An introduction to research on career development and the contemporary workforce. The course provides an overview of the major theories of career choice, such as trait-factor, developmental, and ecological approaches. The structure of vocational interests, values, personality, and abilities is also discussed. Finally, research on graduate school admissions and job search strategies is reviewed.

Prerequisites: Psychology major or permission of instructor, second-semester sophomore status, and completion of two (2) of the four (4) Psychology domains.

### **PSYC 305 Human Relations**

Designed to provide students with an opportunity to study and to experience the small group situation in which the focus is on understanding the dynamics of interpersonal behavior and on developing communication skills. Topics include self-concept, person perception, verbal and non-verbal communication, and conflict resolution. Note: Students cannot receive credit for this course and PSYC 258 Human Relations.

Prerequisites: Completion of the Sociocultural Domain and one (1) of the other three (3) remaining Domains.

### **PSYC 310 Psychological Testing**

An introduction to the methods used in constructing and standardizing psychological tests. This course provides an overview of the many different varieties of tests, ranging from standardized tests of aptitude and achievement to individually administered projective tests. The use of psychological tests in schools, industry, social service agencies, and clinics is discussed. **Note:** Students who have taken PSYC 275 Introduction to Psychological Testing cannot receive credit for PSYC 310 Psychological Testing.

Prerequisites: Completion of General Education Domain 2 requirement; and completion of two (2) Domains.

### **PSYC 313 Developmental Disabilities**

The study of disorders commonly observed in infants and children. Disorders resulting from genetic abnormalities and environmental factors are studied, including mental retardation, cystic fibrosis, sickle-cell anemia, fetal alcohol syndrome, prematurity, failure-to-thrive, and learning disabilities. Current interventions and treatments are examined.

Prerequisites: Completion of the Developmental Domain and one (1) of the other three (3) remaining Domains.

### **PSYC 318 Educational Psychology**

An advanced course on psychological research topics relevant to the classroom, such as achievement, motivation, self-esteem, creativity and intelligence, testing and assessment, and peer relationships. An examination of issues relevant to gender, race, and social class within educational settings are included from a psychological perspective. The psychological implications of school transitions, mainstreaming of special needs students, tracking, sports and extracurricular activities, and clinical disorders manifested in the classroom may be covered.

Prerequisites: Completion of the Developmental Domain and one (1) of the other three (3) remaining Domains.

### **PSYC 322 Abnormal Psychology**

An examination of some of the behaviors classified as abnormal by the most recent version of the Diagnostic Statistical Manual (DSM). Problems in defining abnormality are discussed, and such major theoretical approaches to causation and treatment as the biological, psychoanalytic, behavioristic, and humanistic are compared. Opportunity for field trips or field experience may be offered.

Prerequisite: Completion of two (2) of the four Domains.

### **PSYC 338 Industrial-Organizational Psychology**

An introduction to psychological principles applied to the workplace and the field of industrial-organizational psychology. Possible topics include job analysis, test development, selection procedures, training, performance appraisal, job satisfaction, motivation, leadership, work stress, and careers. Research, practical applications, and cultural influences on work behavior are discussed.

Prerequisites: Completion of the Sociocultural Domain from Psychology and one (1) of the other three (3) remaining Psychology Domains, or permission of instructor.

### **PSYC 341 Group Dynamics**

An examination of the structure, function, and interactive processes of groups. Research methods appropriate for the study of groups are stressed, and research findings are discussed. Special attention is given to interaction patterns and to personality attributes that influence modes of group interaction.

Prerequisites: Completion of the Sociocultural Domain and one (1) of the other three (3) remaining Domains.

### **PSYC 345 Directed Study in Psychological Research**

An opportunity for the advanced student in psychology to participate as a research assistant in a faculty-initiated and directed project. Ability to work with a degree of independence and to complete assigned tasks in accordance with the instructor's guidance is expected. The instructor is responsible for specifying the research topic(s), materials, and methodology. The student and the supervising professor are responsible for determining a contract that identifies the course objectives and the means for evaluating the student's performance. The course may be taken twice to allow students to pursue projects that require more than one semester, or to work closely with more than one faculty member.

Prerequisites: Junior Status, and completion of two (2) of the four (4) Domains as specified by the instructor of record, and approval of the department chair. **Psychology majors only.**

### **PSYC 353 Topics in Human Services**

A course that includes ethical issues, interviewing techniques, observational methods, communication skills applicable to counseling techniques, government regulations, and other topics relevant to effective functioning in a human services setting.

Prerequisite: Junior Status, and completion of the Sociocultural Domain and one (1) of the other three (3) remaining Domains; or permission of the instructor. **Psychology majors only.**

### **PSYC 355 Contemporary Issues in Psychology**

An in-depth examination of a current psychological issue with particular emphasis on the contributions of recent research. Topic and instructor are announced each year.

Prerequisites: Junior Status, and completion of two (2) of the four (4) Domains as specified by the instructor of record. **Psychology majors only.**

### **PSYC 369 Human Sexuality**

An examination of human sexual development. Issues in development of sexuality are presented from both a theoretical and research basis emphasizing psychological, biological, environmental, and cultural perspectives. Students are required to master the literature on social policy issues around topics that may include abortion, pornography, AIDS and the right to privacy, homosexuals and parenting, forced sexual behavior, contraception and sex, private sex between consenting adults, incest, and the decriminalization of prostitution. **Note:** *Credit is not given for both this course and CONS 270 Human Sexuality Education.*

Prerequisites: Junior status, completion of two (2) of the four (4) Domains, and any one of the following courses: PHIL 102 Introduction to Ethics, PHIL 105 Introduction to Political and Social Philosophy, or PHIL 118 Introduction to Philosophy of Science; or permission of the instructor.

### **PSYC 370 Developmental Psychopathology**

The study of functional disorders commonly originating before the age of 21. Psychiatric disorders resulting from genetic abnormalities and from environmental factors are studied, including affective and anxiety disorders, adjustment and conduct disorders, and posttraumatic stress disorders. Current medical and therapeutic treatments are examined. Familiarity with both normal child and normal adolescent development is strongly recommended.

Prerequisite: Completion of the Developmental Domain and one (1) of the other three (3) remaining Domains.

### **PSYC 391 Research II: Quasi-Experimental and Experimental Methods**

An enhancement of student understanding of psychology as a science through advanced quantitative research methods focused on quasi-experimental and experimental designs. Students apply their knowledge and skills from PSYC 291 Research I: Descriptive and Correlational Methods. Individually and/or in groups, students select or manipulate independent variables, measure dependent variables, and control or account for extraneous variables. Findings are analyzed using appropriate statistics, prepared in written APA (American Psychological Association)-style reports, and disseminated in poster and/or presentation formats. **Note:** *Students may not receive credit for both PSYC 391 Research II: Quasi-Experimental and Experimental Methods and PSYC 351 Psychology Research II: Design and Statistical Applications.*

Prerequisites: Completion of PSYC 291 Research I: Descriptive and Correlational Methods with a minimum grade of C-, and permission of instructor. **Psychology majors only.**

### **PSYC 403 Practicum in Teaching of Psychology**

An opportunity to serve as a teaching assistant on campus in a psychology course under the close supervision of the course instructor. Teaching assistants typically conduct class discussions, prepare class materials and demonstrations, assist in construction of examinations, and confer with students.

Prerequisite: Approval of the supervising course instructor. **Psychology majors only.**

### **PSYC 450 Empirical Research Thesis in Psychology**

A culminating academic experience for Psychology majors during which students apply research methodology to the study of psychological topics. Working alone or in small groups, students complete at least one original empirical research project through stages of the research process, such as review of literature, hypothesis formulation, research design, data collection and analysis, and drawing conclusions. As one of the capstone courses for the major, students continue to develop their ability to think within the discipline, and they refine their communication skills through oral and written reports. They also apply and/or integrate knowledge about the scientific method, ethics, and diversity. Students create a final product for public dissemination. Research methods, content, and supervision structure may vary by instructor. *Note: A minimum grade of C- (1.70) is required in this course in order to fulfill a psychology major capstone requirement.*

Prerequisites: Second-semester junior status, completion of PSYC 391 Research II: Quasi-Experimental and Experimental Methods with a minimum grade of C-, completion of one additional 300-level psychology course, and permission of instructor. **Psychology majors only.**

### **PSYC 460 History and Systems of Psychology**

A culminating academic experience for Psychology majors during which students investigate the history of psychology from early Greek philosophers to present day researchers and discuss the future of psychology. To understand core principles in the field, students read original historical and contemporary works. As one of the capstone courses for the major, students continue to develop their ability to think within the discipline, and they refine their communication skills through oral and written reports. They also apply and/or integrate knowledge about the scientific method, ethics, and diversity. Students create a final project for public dissemination. *Note: A minimum grade of C- (1.70) is required in this course in order to fulfill a psychology major capstone requirement. Note: Students cannot receive credit for this course and either PSYC 360 History and Systems of Psychology or PSYC 402 History and Systems of Psychology.*

Prerequisites: Second-semester junior status, completion of PSYC 391 Research II: Quasi-Experimental and Experimental Methods with a minimum grade of C-, completion of one (1) additional 300-level psychology course, completion of one (1) of the following: PHIL 102 Introduction to Ethics, PHIL 105 Introduction to Political and Social Philosophy, or PHIL 118 Introduction to Philosophy of Science, and permission of instructor. **Psychology majors only.**

### **PSYC 480 Psychology Seminar**

A culminating academic experience for Psychology majors during which students read original research and theoretical papers covering a single area in psychology and take an active role in leading class discussions. Laboratory or field research may be required. As one of the capstone courses for the major, students continue to develop their ability to think within the discipline, and they refine their communication skills through oral and written reports. They also apply and/or integrate knowledge about the scientific method, ethics, and diversity. Students create a final project for public dissemination. Topic and instructor to be announced each semester. *Note: Students cannot receive credit for both this course and PSYC 451 Psychology Seminar. Note: A minimum grade of C- (1.70) is required in this course in order to fulfill a psychology major capstone requirement.*

Prerequisites: Second-semester junior status, completion of PSYC 391 Research II: Quasi-Experimental and Experimental Methods with a minimum grade of C-, completion of one (1) additional 300-level psychology course, and permission of instructor. **Psychology majors only.**

### **PSYC 490 Advanced Independent Study in Psychology**

An opportunity for the advanced student in psychology to conduct an in-depth investigation of a special topic or to carry out original research. Ability to work with a high degree of independence is expected. The student is responsible for arranging with the cooperating professor a contract that will specify topics or material to be covered, methods of study, and method of evaluation. The course may be taken twice to allow the student to pursue a project that requires more than one semester, or to work closely with more than one faculty member.

Prerequisites: Junior status, completion of PSYC 391 Research II: Quasi-Experimental and Experimental Methods with a minimum grade of C-, completion of one (1) additional 300-level psychology course, and approval of the supervising professor and department chair. **Psychology majors only.**

### **PSYC 495 Internship in Psychology**

A culminating academic experience for Psychology majors during which students work in a supervised field placement. The field work involves a minimum of 8 hours per week (120 hours total) in an applied setting such as a community service agency, school, clinic, hospital, research facility or business. Students are responsible for securing a placement and presenting it to the course instructor for approval. The field work is supported by class meetings on campus, and career planning is integrated into the course. As one of the capstone courses for the major, students continue to develop their ability to think within the discipline, and they refine their communication skills through oral and written reports. They also apply and/or integrate knowledge about the scientific method, ethics, and diversity. Students create a final project for public dissemination. Students are encouraged to work with Career Services and Employer Relations for guidance on the internship search process. *Note: A minimum grade of C- (1.70) is required in this course in order to fulfill a psychology major capstone requirement.*

Prerequisites: Junior status, completion of PSYC 391 Research II: Quasi-Experimental and Experimental Methods with a minimum grade of C-, completion of one (1) additional 300-level psychology course, and permission of instructor. **Psychology majors only.**

# Sociology

## Chair: Benjamin Alberti

Professors: Benjamin Alberti, Marian A. Cohen,  
Jonathan Martin, Virginia Rutter, Ira Silver,  
Henry Tischler, Ellen Zimmerman

Assistant Professors: Kaan Agartan, Daisy Barbara Ball,  
Vincent Ferraro, Xavier Guadalupe-Diaz,  
Ke Li, Meredith Marchioni, James McQuaid,  
David Nnyanzi, Lina Rincon,  
Patricia Sanchez-Connally

Instructor: Martel Pipkins

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

## The General Education Requirement

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain II-A (Analysis, Modeling, and Problem Solving) requirement is satisfied through the completion of the Criminology or Sociology major.

## Course Prerequisites

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

## CRIMINOLOGY MAJOR

The Criminology major is an interdisciplinary baccalaureate program grounded in a strong liberal arts curriculum. This program introduces students to three important dimensions of criminology: 1) the role of law and legal systems; 2) social/structural dimensions of crime; 3) individual/behavioral dimensions of crime. While this program will undoubtedly attract students interested in criminal justice careers, it is intended to offer students access to a broader array of career opportunities than that provided by training in Criminal Justice. Students studying criminology at Framingham State University will learn to approach the issue of crime in society from a theoretically informed and research-based perspective in a program that places great emphasis on the underlying causes of crime and on the role of policy-making and policy implementation in crime prevention and crime control.

## Departmental Requirements for the Criminology major

### Six (6) core courses:

CRIM	121	Social Perspectives on Criminology
CRIM	301	Criminology Theory
SOCI	302	Quantitative Methods I – Research Design
SOCI	303	Quantitative Methods II – Data Collection & Analysis
SOCI	320	Uncovering Meaning in the Social World
CRIM	495	Internship in Criminology <b>or</b> POSC 450 Internship in the Judicial System

**Recommended Courses:**

BIOL	142	Introduction to Human Biology (Gen. Ed. Domain II-B, Lab)
MATH	117	Introduction to Statistic (Gen. Ed. Domain II-A)
PSYC	101	General Psychology (Gen. Ed. Domain III-B)

**CONCENTRATION IN GENERAL CRIMINOLOGY (UCRG)****Concentration core requirements (6 courses):**

Students must select six (6) elective courses, two (2) courses from each of the areas listed below. Three (3) electives must be taken in a minimum of two (2) departments other than Sociology.

**Law and the Legal System:**

ANTH	206	Forensic Anthropology
CRIM	201	White Collar Crime
CRIM	240	Drugs, Social Control, and the Law
CRIM	313	The Culture of Punishment
MGMT	215	Legal Environment of Business
POSC	250	American Legal Systems (Gen. Ed. Domain 10)
POSC	315	Judicial Politics and Policy
POSC	316	U.S. Constitutional Law and Politics
SOCI	230	Law and Society

**Social/Structural Dimensions of Crime and Criminal Behavior:**

CRIM	211	Crime and Inequality
CRIM	222	Global Criminology
CRIM	233	Victimization and Justice
CRIM	321	Intimate Partner Violence
POSC	337	Legislative Politics and Policy
SOCI	130	Social Problems
SOCI	245	Race and Ethnic Relations
SOCI	263	Social Inequality
SOCI	288	Immigration in the United States

**Individual/Behavioral Dimensions of Crime and Criminal Behavior:**

ANTH	258	Critical Approaches to Men and Masculinities
CONS	310	Drug Addiction
CRIM	224	Juvenile Delinquency
CRIM	270	Social Deviance
NEUR	225	Biopsychology
PHIL	102	Introduction to Ethics: Why be Moral? (Gen. Ed. Domains 4,12)
PSYC	212*	Adolescent Development (Gen. Ed. Domains 9, 12)
PSYC	271*	Principles of Behavior Modification
PSYC	322*	Abnormal Psychology
SOCI	333	Society and the Mentally Ill

\*Indicates course has a prerequisite

**SOCIOLOGY MAJOR****Departmental Requirements for Major in Sociology****Six (6) core Sociology courses:**

SOCI	101	Introduction to Sociology	<b>or</b>
		SOCI 130 Social Problems	
SOCI	301	Sociological Theory	
SOCI	302	Quantitative Methods I – Research Design	
SOCI	303	Quantitative Methods II – Data Collection & Analysis	
SOCI	320	Uncovering Meaning in the Social World	
SOCI	495	Sociology Senior Thesis Seminar	<b>or</b>
		SOCI 495 Internship in Sociology	<b>or</b>
		ANTH 495 Internship in Anthropology	

**Recommended Course:**

MATH	117	Introduction to Statistics (Gen. Ed. Domain 2)
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**CONCENTRATION IN GENERAL SOCIOLOGY (USOG)****Five (5) Courses:**

All Sociology majors are required to complete 5 department electives (can be Anthropology, Criminology, or Sociology), two (2) of which must be at the 300-level or above.

**Areas of Focus**

Students majoring in Sociology may elect to follow an area of focus within the major. An area of focus is not the same as a concentration and will not be noted on a student's transcript or audit. A cohesive sequence of courses in a subfield of the discipline enables students to strengthen their knowledge for employment opportunities upon graduation and/or advanced post-graduate training. Students interested in pursuing an area of focus are encouraged to choose their major electives from the courses listed below:

***Area of Focus: Anthropology***

Anthropology provides an understanding of culture, the various adaptive styles human beings have devised, and the ways in which they have become diversified. It is designed to prepare students for careers involving interaction and cooperation with people from diverse cultural, religious, and ethnic groups. Some examples are government; international development; foundation administration; business enterprises, especially those with overseas interests; non-profit organizations, especially non-governmental organizations (NGO's) with global interests; human ecology; and environmental consulting. In addition, this area of focus prepares students for graduate study in anthropology, sociology, and international relations.

## Recommended courses:

ANTH	161	Cultural Anthropology
ANTH	172	Interpreting the Past: Archaeological Perspectives
ANTH	206	Forensic Anthropology
ANTH	207	Global Issues in Anthropology
ANTH	243	Native American Cultures



ANTH	253	Gender Across Cultures
ANTH	258	Critical Approaches to Men and Masculinities
ANTH	290	Non-Western Cultural Studies Tour
ANTH	313	South American Archaeology
ANTH	360	Language and Culture
ANTH	370	Psychological Anthropology

***Area of Focus: Business and Society***

This subfield is for students interested in professional and business careers. The focus is on various models of work systems in American enterprise, social regulation of business, the character of the global economy, and markets as systems of social exchange relating to families, work organizations, and the state. Fieldwork is encouraged for students through our field experience course.

Recommended courses:

ANTH	161	Cultural Anthropology
CRIM	201	White Collar Crime
SOCI	218	Women in Society
SOCI	230	Law and Society
SOCI	282	Society, Technology, and the Future
SOCI	308	Political Sociology
SOCI	315	Social Class
SOCI	340	Sociology of Work
SOCI	342	People and Organizations
SOCI	357	Sociological Perspectives on Globalization

***Area of Focus: Deviance and Social Control***

A focus on deviance and social control implies taking a careful look at how forms of social and personal behavior which violate mainstream norms arise, and at how mainstreamers and mainstream social institutions regard and respond to such behavior. We will be looking at behavioral styles called “crime”, “delinquency”, “immorality”, “non-conformity”, and so forth. How do such modes of behavior arise and how do they become labeled as deviant styles by the society and its mainstream enforcers? How do deviants assess their own behavior and how is it viewed by others? How does it affect their relationships with others? What do “insider- outsider” relations consist of? What does society as a whole define as order? How do various social institutions and groupings (the legal and medical establishments, and the upholders of public morality) respond to what they view to be disorder? How does society punish transgressors and enforce rules and impose sanctions? This subfield is particularly suitable for those interested in the practice of law and law enforcement, politics, public administration, mental health, and social work.

Recommended courses:

CRIM	121	Sociological Perspectives on Criminology
CRIM	201	White Collar Crime
CRIM	211	Crime and Inequality
CRIM	224	Juvenile Delinquency
CRIM	270	Social Deviance
CRIM	240	Drugs, Social Control, and the Law

SOCI	225	Genocide and Violence: Sociological Perspectives
SOCI	230	Law and Society
SOCI	267	Sociology of Subcultures
SOCI	312	Sociology of Childhood and Adolescence
SOCI	333	Society and the Mentally Ill

**Area of Focus: Gender Studies**

Students who focus on gender studies closely examine the way in which gender systems are embedded into social institutions, culture, and everyday interactions. Courses teach students to develop methods of inquiry regarding gender that they can continue to apply in multiple realms—ranging from family and intimate relationships to public policies related to crime and justice. As such, departmental areas of sociology, anthropology, and criminology can incorporate a productive focus on gender.

Recommended courses:

ANTH	253	Gender Across Cultures
ANTH	258	Critical Approaches to Men and Masculinities
SOCI	212	Sociology of Families
SOCI	218	Women in Society
SOCI	312	Sociology of Childhood and Adolescence
SOCI	369	Sex/Sexualities in Society

**Area of Focus: Human Services**

This subfield is appropriate for students interested in careers in human services, such as non-profit agency administration, social work, counseling, community organizing, health care policy analysis, and health care administration. Additionally, this area of focus offers preparation for graduate study in social work, health care administration, law, sociology, psychology, education, and human resource management. The Human Services subfield provides an in-depth examination of the impact of social forces on human behavior.

Recommended courses:

CRIM	224	Juvenile Delinquency
SOCI	212	Sociology of Families
SOCI	245	Race and Ethnic Relations
SOCI	248	Social Structure and the Self
SOCI	263	Social Inequality
SOCI	280	Aging in Society
SOCI	288	Immigration in the United States
SOCI	306	Nonprofit Giving
SOCI	312	Sociology of Childhood and Adolescence
SOCI	315	Social Class
SOCI	325	Health and Illness
SOCI	333	Society and the Mentally Ill
SOCI	366	Death and Dying
SOCI	369	Sex/Sexualities in Society

**Area of Focus: Social Justice**

A focus on the study of social inequalities and the struggle to achieve a more equitable society and world. The area of focus examines class, race, ethnic, national, and gender divisions and their connections to major social and political problems. It also considers possible solutions and related strategies of social change. This subfield is suitable for students interested in political activism, government service, social work, teaching, law, and graduate work in the social sciences.

## Recommended courses:

ANTH	207	Global Issues in Anthropology
ANTH	253	Gender Across Cultures
ANTH	258	Critical Approaches to Men and Masculinities
SOCI	218	Women in Society
SOCI	222	The World on the Move: Migration in a Global Era
SOCI	245	Race and Ethnic Relations
SOCI	263	Social Inequality
SOCI	288	Immigration in the United States
SOCI	308	Political Sociology
SOCI	315	Social Class
SOCI	356	Social Movements
SOCI	357	Sociological Perspectives on Globalization

**MINORS****MINOR IN ANTHROPOLOGY (5 COURSES)**

The following courses are required to complete this minor:

ANTH 161 Cultural Anthropology

Four (4) additional from the Anthropology (ANTH) area of focus.

*Note: Criminology and Sociology majors who minor in Anthropology may not count Anthropology electives towards the major.*

**MINOR IN CRIMINOLOGY (5 COURSES)**

The following courses are required to complete this minor:

CRIM 121 Social Perspectives on Criminology

Four (4) additional course from the following list, at least one of which must have a CRIM designation:

CONS 310 Drug Addiction

CRIM 201 White Collar Crime

CRIM 211 Crime and Inequality

CRIM 222 Global Criminology

CRIM 224 Juvenile Delinquency

CRIM 233 Victimization and Justice

CRIM 240 Drugs, Social Control, and the Law

CRIM	270	Social Deviance
CRIM	301	Criminology Theory
CRIM	313	The Culture of Punishment
CRIM	321	Intimate Partner Violence
POSC	250	American Legal Systems (Gen. Ed. Domain 10)
POSC	315	Judicial Politics and Policy
POSC	316	U.S. Constitutional Law and Politics
POSC	337	Legislative Politics and Policy
POSC	450	Internship in the Judicial System
PSYC	322	Abnormal Psychology
SOCI	230	Law and Society
SOCI	245	Race and Ethnic Relations
SOCI	263	Social Inequality
SOCI	333	Society and the Mentally Ill

*NOTE: Sociology majors may not count the same course toward both the Sociology major and the Criminology minor.*

### MINOR IN SOCIOLOGY (5 COURSES)

The following courses are required to complete this minor:

SOCI 101 Introduction to Sociology

Four (4) additional Sociology (SOCI) courses.

### SOCIOLOGY COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)

Course	Domain
ANTH 161 Cultural Anthropology	III-B
ANTH 172 Interpreting The Past: Archaeological Perspectives	III-A
ANTH 206 Forensic Anthropology	III-A
ANTH 207 Global Issues In Anthropology	III-C
ANTH 243 Native American Cultures	III-B
ANTH 253 Gender Across Cultures	III-B
ANTH 258 Critical Approaches To Men And Masculinities	III-B
ANTH 290 Non-Western Cultural Studies Tour	III-C
CRIM 121 Sociological Perspectives On Criminology	III-B
CRIM 201 White Collar Crime	III-B
CRIM 211 Crime and Inequality	III-B
CRIM 224 Juvenile Delinquency	III-B
CRIM 240 Drugs, Social Control, And The Law	III-B
CRIM 270 Social Deviance	III-B

GLST	101	Introduction To Global Studies	III-C
SOCI	101	Introduction To Sociology	III-B
SOCI	130	Social Problems	III-B
SOCI	201	International Field Study In Sociology	III-C
SOCI	204	Environmental Sociology	III-C
SOCI	212	Sociology Of The Families	III-B
SOCI	218	Women In Society	III-B
SOCI	220	Sport In Society	III-C
SOCI	222	The World on the Move: Migration in a Global Era	III-C
SOCI	230	Law And Society	III-B
SOCI	245	Race And Ethnic Relations	III-C
SOCI	263	Social Inequality	III-B
SOCI	280	Aging In Society	III-B
SOCI	282	Society, Technology, And The Future	III-B

## ANTHROPOLOGY COURSE DESCRIPTIONS

### **ANTH 161 Cultural Anthropology (Gen. Ed. Domain III-B)**

An exploration of how culture influences us to believe, think, and act. The course presents cross-cultural perspectives on aspects of human life, which may include how we get the things we need to survive, what sort of family life is desirable, and how we govern ourselves and maintain social order. Both Western and non-Western ideas and practices are explored. Students are introduced to the methods used by anthropologists in the study of culture.

### **ANTH 172 Interpreting the Past: Archaeological Perspectives (Gen. Ed. Domain III-A)**

An exploration of past Western and non-Western social worlds through the examination of their material remains. The course investigates past beliefs and practices, including those involving treatment of the dead, power and prestige, art, architecture, and gender. Students learn how archaeologists use techniques such as excavation, survey, and interpretation to study past behavior.

### **ANTH 206 Forensic Anthropology (Gen. Ed. Domain III-A)**

An introduction to the field of forensic anthropology. Forensic anthropologists solve problems related to cause of death and help establish personal identity from human skeletal remains and other evidence, especially in cases of medical and legal importance. Students learn about the relevant techniques and theories, from archaeology, biological anthropology, skeletal biology, and related disciplines. Cases covered include from the historical or ancient (for example, sacrificial death in ancient Peru) to the contemporary (for example, the excavation of mass graves and other human rights violations).

### **ANTH 207 Global Issues in Anthropology (Gen. Ed. Domain III-C)**

An anthropological analysis of the interconnections among issues such as the culture of capitalism, the global economy, global inequality, warfare and violence, hunger and starvation, human trafficking and the drug trade, and the unequal effects of climate change. Perspectives on paths to addressing global problems are also discussed.

### **ANTH 243 Native American Cultures (Gen. Ed. Domain III-B)**

An investigation of the lifeways and histories of several Native American cultures from an anthropological perspective. Issues of gender, class, and race, as they affect Native Americans, are an important focus of this course.

**ANTH 253 Gender Across Cultures (Gen. Ed. Domain III-B)**

An investigation of how womanhood and manhood are thought of and practiced in Western and non-Western cultures. The course addresses questions such as the following: How do we learn to be men or women? How do ideas of masculinity and femininity differ depending upon culture, race/ethnicity, and social class?

**ANTH 258 Critical Approaches to Men and Masculinities (Gen. Ed. Domain III-B)**

An examination of the cultural forces that drive men to assume particular masculine identities, with a strong emphasis on cross-cultural alternatives. Students also learn about the social and cultural forces that shape a person's experience of being a man, including race/ethnicity, social class, sexual orientation, and ideas about gender. The course addresses contemporary issues men face.

**ANTH 290 Non-Western Cultural Studies Tour (Gen. Ed. Domain III-C)**

Taught through an extensive field trip or series of field trips, combined with more traditional methods of teaching, Students gain direct experience of a non-western culture or cultures through first-hand, intensive exposure to aspects of the culture of a particular area. The cultures and locations may vary from year to year, and are announced in the course schedule for a given semester. Students prepare in advance for their field excursions through assigned readings and discussion meetings with the instructor, and are evaluated on their learning experience. This course may be repeated for credit through travel to an alternate site.

**ANTH 313 South American Archaeology**

An exploration of the archaeology of South America. The course follows key debates in South American archaeology, including early peopling, ecological adaptation, the origins of "civilization," empires, and practices such as head-hunting, sacrifice, and ritual. Cultures and areas studied may include Monte Verde, the Inca, Moche, and the ancient Amazon. Students learn to think critically and archaeologically about such issues and cultures.

Prerequisite: ANTH 161 Cultural Anthropology or ANTH 172 Interpreting the Past: Archaeological Perspectives; or permission of the instructor.

**ANTH 360 Language and Culture**

An examination of language and culture from an anthropological perspective. The course investigates how language shapes our perceptions, and how language is controlled by powerful groups, such as politicians and the media, to influence our ideas and behaviors. It poses the question: Why do women and men, members of different racial/ethnic groups, and people of different social classes speak the same language differently?

Prerequisite: ANTH 161 Cultural Anthropology or permission of instructor.

**ANTH 370 Psychological Anthropology**

An investigation of how culture shapes our perceptions, motivations, and ways of thinking and learning. The course also explores ideas of the "person" in Western and non-Western societies, and how these ideas affect beliefs and practices surrounding child rearing, mental illness and its treatment, and the question of whether the individual or the group should come first.

Prerequisite: ANTH 161 Cultural Anthropology or permission of instructor.

**ANTH 490 Independent Study in Anthropology**

An in-depth investigation in a specific topic relating to the student's interest in anthropology. The selection is made by the student with written approval of the faculty advisor. Oral presentation and final written report required.

Prerequisite: Junior status; a 100- level course in Sociology or Anthropology; permission of instructor.

**ANTH 495 Internship in Anthropology**

A first-hand exploration of careers related to anthropology through the prism of an internship chosen by the student in either a nonprofit, for-profit, or government organization. Students are expected to work at their internship site eight hours per week and to take notes about what they are observing on the job. In class, students discuss readings in order to make sense of their observations, and to develop a term paper about some aspect of their internship site.

Prerequisite: Junior status; a 100- level course in Sociology or Anthropology; permission of instructor.

## CRIMINOLOGY COURSE DESCRIPTIONS

### **CRIM 121 Social Perspectives on Criminology (Gen. Ed. Domain III-B)**

A sociological analysis of the types, causes, and consequences of criminal behavior including street crime, organized crime, and white-collar crime. Emphasis is placed on the links among theory, research, and policy. **Note:** Students may receive credit for both this course and SOCI 121 Criminology or 52.271 Criminology.

### **CRIM 201 White Collar Crime (Gen. Ed. Domain III-B)**

An exploration of a wide array of illegal behaviors that people rarely consider when they think of crime. These are crimes often committed by people in positions of power. Students learn about the social, political, and economic causes and consequences of white collar crime.

### **CRIM 211 Crime and Inequality (Gen. Ed. Domain III-B)**

An exploration of the relationship of crime and crime control to systems of inequality. Students gain an understanding of race, class, gender, and sexuality as categories of analysis and as structures which influence the life course. The class explores the arguments that scholars and activists have made about how systems of inequality are maintained and reproduced by criminal justice institutions and practices. Additionally, students gain familiarity with explanations for criminological questions.

### **CRIM 222 Global Criminology**

An exploration of how globalization is shaping the spread of criminal activity and social control across national borders. Attention is given to the forces that explain newly emerging global phenomena including organized crime, transnational policing, the transfer of penal knowledge and policies, human trafficking, and cyber crime. The course aims to enable students to develop a critical global approach to the study of crime and crime control.

### **CRIM 224 Juvenile Delinquency (Gen. Ed. Domain III-B)**

An analysis of juvenile conduct and causes of delinquency; police and probation procedures in juvenile cases; and current research and rehabilitation programs in the field of juvenile delinquency with emphasis on the programs in Massachusetts.

### **CRIM 233 Victimization and Justice**

An examination of the experience of being a crime victim. This course surveys the impacts various types of crime have on the people who are most directly affected. Emphasis is placed on how social status shapes a person's likelihood of experiencing crime. Attention is also given to the responses to victimization made by the criminal justice system, social welfare agencies, government, and the media.

### **CRIM 240 Drugs, Social Control, and the Law (Gen. Ed. Domain III-B)**

A critical review of legal efforts to control the trafficking and consumption of drugs. Topics include societal definitions of drugs, socioeconomic conditions that encourage their use and the legal environment of their regulation. Emphasis is on the social and political forces that shape the passage of legislation aimed to limit access to certain drugs, from the Prohibition Movement to the War on Drugs, and the lessons from drug regulation campaigns. The evolution of the societal concept of addiction is examined, from its origins in the religious notion of sin to its more recent framing as a disease.

### **CRIM 270 Social Deviance (Gen. Ed. Domain III-B)**

An examination of what is involved in the creation of deviant categories and the consequences of being deviant. A variety of deviant behaviors and conditions is investigated, such as criminal behavior, illness, or genius. **Note:** Students may not receive credit for both this course and SOCI 329 Social Deviance.

Prerequisite: SOCI 101 Introduction to Sociology or ANTH 161 Cultural Anthropology

### **CRIM 301 Criminological Theory**

An analysis of the major theories that seek to explain crime and delinquency. The course is a survey of early criminological theories such as anomie and disorganization theory, as well as contemporary variants, including choice theory, cultural and structural explanations, and psychological interpretations. The course focuses on critiques of these theories. Students become familiar with these perspectives by applying them to contemporary illustrations.

Prerequisite: CRIM 121 Sociological Perspectives on Criminology and one (1) other criminology course. **Open to Criminology Majors or Minors Only.**

**CRIM 313 The Culture of Punishment**

An examination of the concept of punishment in cultural context. Attention is paid to cultural constructs of punishment throughout history, with special attention paid to our modern-day culture of punishment, including mass incarceration. The course aims to make students aware of the outcomes of modern-day systems of punishment and how these systems interact with structures of social inequality. The course may include an experiential component.

Prerequisite: CRIM 121 Social Perspectives on Criminology or SOCI 101 Introduction to Sociology or SOCI 130 Social Problems or ANTH 161 Cultural Anthropology.

**CRIM 321 Intimate Partner Violence**

An analysis of the causes and consequences of intimate partner violence. Emphasis will be placed on societal and cultural factors. The course considers how intimate partner violence varies by social class, race, ethnicity, gender identity, and sexual orientation. Legal, medical, and social service responses to intimate partner violence are explored.

Prerequisites: A 100-level Criminology or Sociology course.

**CRIM 495 Internship in Criminology**

A first-hand exploration of careers related to criminology through the prism of an internship chosen by the student in either a nonprofit, for-profit, or government organization. Students are expected to work at their internship site for a total of 120 hours per semester and to take notes about what they are observing on the job. In class, students discuss readings in order to make sense of their observations, and to develop a term paper about some aspect of their internship site.

Prerequisites: Junior status; a 100-level course in Criminology.

**SOCIOLOGY COURSE DESCRIPTIONS****SOCI 101 Introduction to Sociology (Gen. Ed. Domain III-B)**

An introduction to the basic concepts, research, and theories sociologists use to increase our understanding of social behavior and human societies. Students discuss such topics as culture, social interaction, social inequality, crime, class, race and ethnic relations, and family, as well as various social problems in modern society.

**SOCI 130 Social Problems (Gen. Ed. Domain III-B)**

An introduction to sociology through the analysis of selected social problems, such as racism, sexism, class inequality, poverty, drug abuse, crime, and environmental destruction. Special attention is given to the social, economic, and political forces that cause these problems in the United States, and to their possible solutions.

**Note:** Students may not receive credit for both SOCI 130 Social Problems and 52.123 Contemporary Social Problems in Urban Society.

**SOCI 201 International Field Study in Sociology (Gen. Ed. Domain III-C)**

An exploration of a country or world region through an extensive field trip in addition to more traditional teaching methods. The focus is the examination of a selected nation or region and its people through a sociological lens with an emphasis on the major social systems and social institutions of the society or societies. Additional consideration may be given to social conflict with emphases on race, ethnicity, social class, gender, religion, sexual orientation, politics, and/or the impact of globalization on the country or region. Travel to the designated location is required (Location to be announced when offered).

NOTE: This course, in a different topic/location, may be repeated once for credit.

**SOCI 204 Environmental Sociology (Gen. Ed. Domain III-C)**

An introduction to the field of environmental sociology, which addresses environmental issues from the perspective of social inequality. This course helps students understand that environmental problems cannot be resolved only technologically; their sociological and social justice dimensions also must be addressed. Topics covered may include the social and ethical implications of global warming; the effects of environmental degradation on individual and social health; the role of class, race, and gender in environmental problems; and the politics of environmental destruction and restoration.

**SOCI 212 Sociology of the Families (Gen. Ed. Domain III-B)**

An examination of what constitutes a family historically and culturally, so as to understand the current state of families. Topics may include dating practices, marriage rituals, reproductive technologies, and family crises such as violence, death, and divorce. There is an emphasis on the influence of gender, race, and class on family life.



**SOCI 218 Women in Society (Gen. Ed. Domain III-B)**

An examination of the changing status of women in the United States in terms of gender, race, and social class. Students study the origins of attitudes towards women, and look at larger institutional, cultural, and social psychological forces that influence the experiences of women in society.

**SOCI 220 Sport in Society (Gen. Ed. Domain III-C)**

An application of various sociological perspectives to the topic of amateur and professional sport in North America. The dynamic relationship between sport as a social institution and hierarchies of race, ethnicity, social class, and gender is explored extensively. The institution of sport is examined as a cultural phenomenon and a powerful socialization tool.

**SOCI/GLST 222 The World on the Move: Migration in a Global Era (Gen. Ed. Domain III-C)**

An exploration of migration patterns, migration experiences, and migration policies in an era of globalization. The course examines the demographic, political, and economic implications of global migration on sending and receiving nations. The course explores the meanings global migrations have for migrants and non-migrants, and discusses the changing role of the nation-state as a provider of social and economic rights for incoming migrants. Discussions also include the incorporation experience of migrants in receiving societies.

**SOCI 225 Genocide and Violence: Sociological Perspectives**

An exploration of the perplexing and disturbing reality of widespread genocide throughout the world — particularly during the 20th Century. The course considers causes, what constitutes genocide, how genocide is rationalized and allowed to continue, and what ends genocide.

**SOCI 230 Law and Society (Gen. Ed. Domain III-B)**

A consideration of law as a process used by societies to accomplish social control, to expedite rational dispute settlement, and to provide for social change. Focusing on the United States, the course examines the interrelationships among the law, history, technology, religion, the economy, and political activities.

Prerequisite: A course from the Sociology or Political Science Department, or permission of instructor.

**SOCI 234 Investigating Social Forces in American Society**

A hands-on approach to the investigation of social issues in the United States from both contemporary and historical perspectives. Students learn how to explore, organize, and present data, using various software packages and the Internet.

Prerequisites: A 100-level Sociology course and sophomore standing.

**SOCI 245 Race and Ethnic Relations (Gen. Ed. Domain III-B)**

An examination of the cultures of various racial and ethnic groups from national, international, and historical perspectives; an overview of the theories relevant for an understanding of the outcomes of intergroup contact. **Note:** Students may not receive credit for both SOCI 245 Race and Ethnic Relations and 52.245 Ethnicity, Culture, and Society.

**SOCI 248 Social Structure and the Self**

An exploration of the relationships between individuals and society with the goal of addressing how society is possible given the inherent diversity of individuals. Attention is directed to such topics as self and identity, roles and society, social perception, and social influences on the individual.

Prerequisite: SOCI 101 Introduction to Sociology or permission of instructor.

**SOCI 256 Religion and Ritual**

An investigation of world religions in their social, political, and cultural contexts. The course offers a comparative perspective on Western and non-Western religious beliefs and practices. **Note:** students may not receive credit for both SOCI 256 Religion and Ritual and 52.368 Religion and Ritual.

Prerequisite: SOCI 101 Introduction to Sociology or ANTH 161 Cultural Anthropology or permission of the instructor.

**SOCI 263 Social Inequality (Gen. Ed. Domain III-B)**

An exploration of how gender, class and race intersect to produce disparities of power and status in the United States.

**SOCI 267 Sociology of Subcultures**

A comparative examination of the beliefs and practices of various subcultures throughout the world and of their relationship to the dominant culture within which they exist. This may include occupational, ethnic, political, or religious subcultures. **Note:** Students may not receive credit for both SOCI 267 Sociology of Subcultures and 52.242 American Sub-Cultures.

**SOCI 280 Aging in Society (Gen. Ed. Domain III-B)**

An examination of the impact of an aging population on social relationships, politics, and the economy in the United States. The course includes study of theory and research in the areas of health, income, work, leisure, family, and intergenerational relationships. **Note:** Students may not receive credit for either 52.280 Social Gerontology or 52.240 Introduction to Social Gerontology and SOCI 280 Aging in Society.

**SOCI 282 Society, Technology, and the Future (Gen. Ed. Domain III-B)**

An investigation of the role that technology plays in contemporary societies, with particular emphasis on the United States. This course investigates the social consequences that reliance on technology may have in the future. Topics may include technology-based learning, space exploration, genetic engineering, and advances in reproductive technology.

**SOCI 288 Immigration in the United States (Gen. Ed. Domain III-C)**

An exploration of the social consequences of immigration. Topics include how immigrants and their children integrate into American society and how white and nonwhite immigrants compare to native-born whites and nonwhites with respect to socioeconomic outcomes such as residential and occupational attainment.

**SOCI 300 Animals and Society**

An exploration of the many roles non-human animals play in our lives – including as sources of food, companionship, and entertainment. Emphasis is placed on the social origins of our attitudes toward other species. Students consider how people balance the idea that animals exist for our benefit with the concept of animal rights. Likewise, the course examines how determinations of which animals are appropriate or inappropriate to eat varies across cultures and religious traditions.

Prerequisite: Any 100-level course in Anthropology, Criminology, or Sociology.

**SOCI 301 Sociological Theory**

An examination of influential explanations regarding the workings of modern society. The course considers enduring concerns such as what drives “progress,” what creates social order or crisis, why social divisions exist, and how social forces and individual attitudes and actions influence one another.

Prerequisites: SOCI 101 Introduction to Sociology or SOCI 130 Social Problems; and one (1) other sociology course. **Open to Sociology Majors or Minors only.**

**SOCI 302 Quantitative Methods I - Research Design**

The first of two (2) quantitative research methods courses. Students learn to synthesize existing scholarly work in order to write literature reviews that guide students as they design quantitative research projects. The research proposed in SOCI 302 Quantitative Methods I – Research Design is completed in the second quantitative research methods course, SOCI 303: Quantitative Methods II - Data Collection & Analysis.

Prerequisites: CRIM 301 Criminological Theory or SOCI 301 Sociological Theory.

**Open to Criminology and Sociology Majors only.**

**SOCI 303 Quantitative Methods II - Data Collection & Analysis**

A continuation of original research projects developed in SOCI 302 Quantitative Methods I - Research Design. Students work in teams to collect and analyze data and present findings in written and oral formats.

Prerequisites: A grade of C- (1.70) or higher in SOCI 302 Quantitative Methods I - Research Design. **Open to Criminology and Sociology majors only.**

**SOCI 306 Nonprofit Giving**

An exploration of how charitable giving can positively impact those in need. Students learn about problems afflicting low-income communities and get hands-on experience in evaluating local organizations that are working to address the root causes of these problems. **Note:** Students may not receive credit for both this course and SOCI 208 Nonprofit Giving.

Prerequisite: A 100-level Sociology course or permission of instructor.

**SOCI 308 Political Sociology**

An examination of power in society. The course addresses questions such as: Who rules a nation? How democratic is the United States, and how democratic should it be? Which social conditions and processes foster democracy, and which obstruct it? How do we explain recent shifts in the balance of sociopolitical power? What future political changes are likely, possible, and desirable?

Prerequisite: A 100-level Sociology course or CRIM 121 Social Perspectives on Criminology; and either HIST 152 United States History since Reconstruction or POSC 110 Introduction to American Politics; or permission of instructor.

**SOCI 312 Sociology of Childhood and Adolescence**

An exploration of sociological issues, theories, and research on childhood and adolescence. The course examines the social worlds provided for and created by children and adolescents. Changing definitions of and socialization patterns in childhood and adolescence over time and across cultures are discussed.

Prerequisite: A 100-level Sociology course or ANTH 161 Cultural Anthropology or permission of instructor.

**SOCI 315 Social Class**

An exploration of class division in the United States. The course considers questions such as: What are the major social classes in our society? To which class do we belong? How likely is it that we will change our class over time? How does the unequal distribution of wealth affect our life chances, quality of life, power, status, and beliefs? Is the current class system fair, and what are the alternatives?

Prerequisite: A 100-level Sociology course or permission of instructor.

**SOCI 320 Uncovering Meaning in the Social World**

An examination of the richness of social interaction and phenomena through an overview of a variety of qualitative research techniques such as interviews, observations, and content analyses. Students are introduced to the theoretical underpinnings of qualitative methodology as well as engage in data collection and analysis.

Prerequisites: CRIM 301 Criminological Theory or SOCI 301 Sociological Theory.

**Open to Criminology and Sociology Majors only.**

**SOCI 325 Health and Illness**

An examination of sociological research in the study of health, illness, and medical practice. Particular attention is given to social definitions and experiences of health and illness, the incidence and prevalence of illness, the physician-patient relationship, and the organization of health care.

Prerequisite: A 100-level Sociology course or ANTH 161 Cultural Anthropology or permission of instructor.

**SOCI 333 Society and the Mentally Ill**

A sociological exploration of the relationship between society and the mentally ill. The course examines the history and current status of medical knowledge and treatment, social attitudes toward those with psychiatric disorders, the experience of illness from the patient's perspective, and the legal and economic issues associated with psychiatric illness.

Prerequisite: SOCI 101 Introduction to Sociology or permission of the instructor.

**SOCI 340 Sociology of Work**

An investigation of the varieties of work and its role in people's lives. Students examine how gender, social class and historical forces influence entrance into various occupations as well as the timing and sequencing of work and career-related events. In addition, students address issues such as sexual harassment, unsafe working conditions, and worker satisfaction.

Prerequisite: A 100-level Sociology course or permission of instructor.

**SOCI 342 People and Organizations**

An investigative analysis of large organizations. Emphasis is placed on the values, beliefs, and behaviors that define an organization's culture.

Prerequisite: A 100-level Sociology course or permission of instructor.

**SOCI/EDUC 350 Education and Social Change**

An examination of two interrelated themes: how social change shapes education and how education expresses social change. Through applied topics such as education's influences on social inequalities through different forms of education, the relationship between the economy and education, and the history of schooling in the United States, students learn key concepts of social change and education and of the relationship between the two. Readings include theory, research, history, and issues-focused articles pertaining to these topics. Students assess contemporary media on education and social change, and they complete independent projects related to topics in education and social agendas.

Prerequisite: SOCI 101 Introduction to Sociology, SOCI 130 Social Problems or EDUC 200 Education in American Society with Field Study I.

**SOCI 356 Social Movements**

An introduction to social movements, revolts and revolutions around the world. The course revisits new approaches in studying collective social actions and addresses different manifestations of fundamental social transformations around the globe. The course particularly focuses on the rise of street politics, motivations for participation, and successes and failures of movements.

Prerequisite: ANTH 161 Cultural Anthropology or any 100-level course in Criminology, Global Studies, Political Science, or Sociology.

**SOCI 357 Sociological Perspectives on Globalization**

An exploration of how the 21<sup>st</sup> century has brought the world to a new level of interconnectedness. Globalization raises a series of questions about the way we view communities, nations, cultures, and international institutions. At every level of interaction, from working in communities to multinational corporations, there are pressing issues of how best to promote economic development, democracy, community, and social justice. To address the variety and complexity of all these issues, this course explores various issues related to globalization and the social, political, economic, and cultural interconnections of the world by combining community experience and academic study.

Prerequisite: A 100-level Sociology course or ANTH 161 Cultural Anthropology or permission of instructor.

**SOCI 366 Death and Dying**

An exploration of the various ways that people understand and respond to the realities of death and dying. These topics are considered within the context of American society as well as cross-culturally and across religious traditions.

Prerequisite: Sophomore status or permission of the instructor.

**SOCI 369 Sex/Sexualities in Society**

An examination of patterns of human sexual behavior and attitudes with a focus on contemporary society in the United States. Students examine theories of sexualities that aid in the interpretation of empirical research on sexual behavior with an emphasis on how gender, race, social class, and sexualities intersect. Using research and theory on the diversity of sexual experience, students study current social issues such as sex education, same-sex marriage, teen sexuality, and the influence of online romantic and sexual worlds.

Prerequisite: A 100-level Sociology course or ANTH 161 Cultural Anthropology or permission of instructor.

**SOCI 400 Topics in Sociology**

A study of selected special subjects in sociology and anthropology to be given from time to time at the discretion of the Department. Topics presented here are on a one-time-only basis and will not be a permanent part of the curriculum.

Prerequisite: A 100-level course in Sociology or Anthropology, or permission of instructor.

**SOCI 480 Sociology Senior Thesis Seminar**

An opportunity for students who seek to expand upon and further develop their research methods project or to initiate a new or related in-depth project. Course work involves creating and completing a research project and culminates in a major paper for presentation at a departmental student research colloquium. Class meetings involve weekly presentations of work progress, research issues, and new discoveries in the literature and in students' research.

Prerequisites: SOCI 303 Quantitative Methods II - Data Collection and Analysis and senior standing. **Sociology majors only.**

**SOCI 490 Independent Study in Sociology**

An in-depth investigation in a specific topic relating to the student's interest in sociology. The selection is made by the student with written approval of the faculty advisor. Oral presentation and final written report required. Limited enrollment.

Prerequisite: Junior status; a 100- level course in Sociology or Anthropology; permission of instructor.

**SOCI 495 Internship in Sociology**

A first-hand exploration of careers related to sociology through the prism of an internship chosen by the student in either a nonprofit, for-profit, or government organization. Students are expected to work at their internship site eight hours per week and to take notes about what they are observing on the job. In class, students discuss readings in order to make sense of their observations, and to develop a term paper about some aspect of their internship site.

Prerequisite: Junior status; a 100- level course in Sociology or Anthropology; permission of instructor.

# World Languages

**Chair: Emilce Cordeiro**

Professors: Emilce Cordeiro, Mary-Ann Stadtler-Chester,  
Michael Wong-Russell

Assistant Professors: Luce Aubry, Andrew Byrne, Cheng-Fu Chen,  
Laura Connor, Juliana Luna Freire

*\*Sabbatical: Fall 2016*

*\*\*Sabbatical: Spring 2017*

**Course Placement**

Incoming students who have completed more than one (1) year of foreign language study at the high school level are encouraged to take a placement examination (see dates below). The recommended course levels for those who did not take a placement examination are: Elementary I for students with up to two years of high school study, or three years of high school language taken some years ago or with below average grades; Elementary II for students with three years of recent high school study with grades that are average or above; Intermediate I for those with three years of high school study with above average grades, or four years with grades of average or below; Intermediate II or Advanced for students with four years of recent high school study with above average grades.

**General Education Domain I-C**

There are several ways to meet general education Domain I-C, which corresponds to one semester of college foreign language study. Students may take one semester of a college-level foreign language or pass the placement test with a score of 50 or above. Alternatively, students may request a waiver from the Chair of World Languages if their high school academic language is other than English (usually applied to international students), or if they studied a single language for four years or reached level 4 in high school. A successful placement score or a waiver of Domain I-C does not reduce the number of courses students must take to fulfill the 12-course general education requirement.

**Placement Examination Dates**

Students may also take French and/or Spanish placement examinations. These are administered in the Center for Academic Support and Advising (contact CASA for reservations).

**Study Abroad**

Study abroad programs in France and Spain are available to all students, whether they major in World Languages or not. Programs in other countries may be selected subject to department approval (program descriptions are available in the chair's office). The Department encourages all Modern Language majors to study abroad. Note that the concentration in French is completed through a study abroad program (or approved off-campus courses).

**AMERICAN SIGN LANGUAGE/ENGLISH INTERPRETING MAJOR**

The American Sign Language-English Interpreting program is a degree-completion program, offered under the auspices of Framingham State University's Continuing Education Department with courses in the program being offered either on the Northern Essex Community College campus or online.

**Requirements Prior to Matriculation**

Prior to entering Framingham State University's program, students need to have completed:

1. Advanced American Sign Language I & II (or demonstrated equivalent competency)
2. An introductory level course in American Sign Language: English interpreting
3. Three courses in the area of Deaf Studies (e.g., Deaf Culture, Deaf Literature and Folklore, Deaf Community)

Additionally, if students are to complete the program in two years, they will need to have accrued general education credits that fulfill at least 7 of Framingham State University's General Education requirements or that are eligible for MassTransfer credit.

### **CONCENTRATION IN AMERICAN SIGN LANGUAGE/ENGLISH INTERPRETING (UASE)**

#### **Core Requirements (10 courses; 9 course-credits):**

ASGN	221	American Sign Language/English Interpreting I
ASGN	222	American Sign Language/ English Interpreting II
ASGN	301	Advanced American Sign Language III
ASGN	302	Advanced American Sign Language IV
ASGN	313	American Sign Language/English Interpreting III
ASGN	314	American Sign Language/English Interpreting IV
ASGN	430	Reading and Analysis of Research in Interpreting (0.5 course-credit)
ASGN	440	Undergraduate Research in Interpreting (0.5 course-credit)
ASGN	451	Interpreting Practicum and Seminar I
ASGN	452	Interpreting Practicum and Seminar II

#### **Related Required Courses (3):**

COMM	207	Interpersonal Dialogue
COMM	234	Intercultural Communication or ANTH 360 Language and Culture
ENGL	297	English Grammar: A Structural Analysis

#### **Writing Intensive Requirement (1):**

Choose one (1) of the following:

ENGL	280	Persuasive Writing
ENGL	282	Creative Writing
ENGL	284	Creative Nonfiction
ENGL	286	Professional Writing
ENGL	288	Writing Fiction

### **SPANISH MAJOR**

#### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain I-C (Language) requirement is satisfied through the completion of the Spanish major.

**Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

**Spanish Major Requirements:**

A total of twelve (12) courses are required for the Spanish concentration. The core course counts as one (1) of the twelve courses. The remaining eleven (11) courses must be selected from the list below and must include the following distribution:

**One (1) Core Requirement (one course):**

LING 200 Languages and Linguistics

LING 300\* Romance Linguistics

*\*Note: Students with a minor in Secondary Education must select LING 300 Romance Linguistics as the core requirement course.*

**CONCENTRATIONS FOR SPANISH MAJORS:****SPANISH (USPG)**

A total of twelve (12) courses are required for the Spanish concentration. The core course counts as one (1) of the twelve courses. The remaining eleven (11) courses must be selected from the list below and must include the following distribution:

**Language courses (two):**

SPAN 301 Advanced Spanish Composition and Conversation I

SPAN 302 Advanced Spanish Composition and Conversation II

**Culture courses (choose two):**

SPAN 334 Spanish American Culture and Civilization

SPAN 431 Contemporary Trends in Spanish-American Thought

SPAN 443 Spanish American Film

SPAN 448 Controversial Cinema of Latin America

**Literature courses (choose two):**

SPAN 320 Introduction to the Analysis of Hispanic Texts

SPAN 335 Major Hispanic Writers I

SPAN 336 Major Hispanic Writers II

SPAN 343 The Latin American Short Story: Love, Death, and Humor

SPAN 345 Tales of Mystery from Latin America

SPAN 435 The Boom in Latin American Literature

SPAN 436 Cervantes

**Major electives:**

To fulfill the twelve-course concentration, students may select from the above courses and from the following:

LING 200 Languages and Linguistics

LING 300 Romance Linguistics

SPAN 490 Independent Study in Spanish

SPAN 495 Internship/Practicum in Spanish



## **COORDINATE MAJOR IN EARLY CHILDHOOD OR ELEMENTARY EDUCATION**

Students pursuing initial licensure in either Early Childhood or Elementary Education may combine a major in Spanish with the Coordinate Major in Education. For a complete description of these programs, refer to the Education section of the catalog, or consult the World Languages Department advisor for Coordinate Majors in Education.

## **SPANISH MAJOR (USPT) WITH MINOR IN SECONDARY EDUCATION**

The minor in Secondary Education leads to Initial Licensure for Teachers of Foreign Languages Grades: Spanish 5-12. The Department requires that prior to student teaching, the students must have taken all of the education courses, LING 300 Romance Linguistics, and nine (9) of the advanced language courses required for the major.

### **1. General Education Requirements (11 courses)**

### **2. Spanish major requirements:**

#### **Core Requirement (one course):**

LING 300 Romance Linguistics

### **3. Education Minor Requirements:**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	318	Professional Preparation and Field Study II: Methods, Special Education, and Technology for World Languages, Grades 5-12 (2 Course-credits)
EDUC	421	Student Teaching Practicum and Seminar I: World Languages Grades 5-12 (2 Course-credits)
EDUC	422	Student Teaching Practicum and Seminar II: World Languages Grades 5 - 12 (2 Course-credits)
PSYC	200	Psychology of Development (Gen. Ed. Domain III-B)

*For further information on teacher education, see the Education Department section of the catalog.*

## **WORLD LANGUAGES MAJOR**

The World Languages major is unique in the Massachusetts State University system. A student majoring in World Languages will select one of four (4) concentrations: Chinese, French, World Languages, or International Management. The department also offers beginning courses in Portuguese and Russian.

### **The General Education Requirement**

All students must satisfy a general education requirement consisting of ten (10) courses outside of the major department. The General Education Domain I-C (Language) requirement is satisfied through the completion of the World Languages major.

### **Course Prerequisites**

Courses may have specified conditions for enrollment, such as prior completion of less advanced courses, permission of the instructor, or appropriate placement test scores. Students should refer to course descriptions in the department listings for prerequisite requirements.

**Department Requirements for the major:**

Modern Language majors must select one of the concentrations described below with the approval of their advisor. Any change in the student's concentration must be approved by the Department Chair. Students in all concentrations must take one of the following two (2) courses as a core requirement.

**Core Requirement (one course):**

LING 200 Languages and Linguistics

*Students with a minor in Secondary Education enroll in LING 300 Romance Linguistics as the core requirement course.*

**CONCENTRATIONS FOR WORLD LANGUAGE MAJORS:****CHINESE (UWOC) (13)**

A total of thirteen (13) courses are required for the Chinese concentration and must include the following distribution:

**Language courses (8):**

CHIN 101 Elementary Chinese I  
 CHIN 102 Elementary Chinese II  
 CHIN 201 Intermediate Chinese I  
 CHIN 202 Intermediate Chinese II  
 CHIN 301 Advanced Chinese Composition and Conversation I  
 CHIN 302 Advanced Chinese Composition and Conversation II  
 CHIN 405 Chinese Language through Media  
 CHIN 438 Topics in Chinese Language and Culture

**One (1) Culture course:**

CHIN 118 Chinese Writing System and Calligraphy

**One (1) Chinese Linguistics course:**

CHIN 300 Chinese Linguistics

**One (1) Chinese Literature course:**

CHIN 222 Chinese Literature in English Translation

**Choose One (1) Chinese Elective course:**

To fulfill the twelve-course concentration, students may select from the above courses and from the following:

CHIN 200 Chinese Culture Through Films  
 CHIN 326 Contemporary Trends in the Sinophone World  
 CHIN 330 Business Chinese  
 CHIN 450 Seminar in Chinese  
 CHIN 490 Independent Study in Chinese  
 CHIN 495 Internship/Practicum in Chinese

**FRENCH (UWOF)**

Students concentrating in French complete their course work in a study abroad program (or approved off-campus courses). To apply for a study abroad program, students should have completed FREN 301 Advanced French Composition and Conversation or its equivalent. Internships abroad and immersion summer programs are also possible options for completing the major. Program descriptions are available in the chair's office.

A total of twelve (12) courses is required for the French concentration. The core course counts as one (1) of the twelve courses. The remaining eleven (11) courses must be selected from the list below and must include the following distribution:

**Language courses (choose two):**

FREN	300	Business French
FREN	301	Advanced French Composition and Conversation I
FREN	302	Advanced French Composition and Conversation II
FREN	452	French Intonation and Diction

**Culture courses (choose two):**

FREN	390	Special Topics in French Studies (culture topic)
FREN	490	Independent Study in French (culture topic)

**Literature courses (choose two):**

FREN	306	Major French Writers I
FREN	307	Major French Writers II
FREN	490	Independent Study in French (literature topic)

**World Language electives:**

To fulfill the twelve-course concentration, students may select from the above courses and from the following:

FREN	490	Independent Study in French
FREN	495	Internship/Practicum in French
LING	200	The Languages of the World
LING	300	Romance Linguistics

**WORLD LANGUAGES (UWOW)**

The concentration in world languages includes the selection of a "primary" language and the selection of a "secondary" language. The concentration languages offered in the department are Spanish and French. Through an approved study abroad program (or an off-campus program), students may select a language other than French or Spanish as their "secondary" language.

**The concentration requirements include the following:**

**Primary language:** Six (6) courses at the 300-level or above.

**Secondary language:** Six (6) courses with a minimum of three (3) courses at the 300-level or above.

The core course may count towards either the primary language or the secondary language requirements.

**INTERNATIONAL MANAGEMENT (UWOI)**

The concentration in International Management is intended for those who wish to combine modern language skills with business. The courses required for the Modern Language major are reduced to ten (10). Students may select a one-language option or a two-language option. In both cases, the core requirement may count as one (1) of the ten (10) language courses. The two (2) required 100-level economics courses can be used to fulfill part of the general education requirements. With careful course selection, students also may qualify for a minor in Economics or Business Administration.

**World Languages courses:****One-language option:**

Ten (10) courses in one language at the 300-level or above.

**Two-language option:**

Six (6) courses in a primary language at the 300-level or above and four (4) courses in a secondary language, three (3) at the 300-level or above.

**Economics and Business courses (8):**

ACCT	220	Introduction to Financial Accounting
ECON	101	Principles of Macroeconomics
ECON	102	Principles of Microeconomics
MGMT	280	Organizational Behavior
MRKT	181	Marketing Principles

**Plus three (3) electives from the following:**

ECON	410	International Trade
FINA	411	International Finance
MGMT	412	International Business
MRKT	318	International Marketing

A semester study or internship abroad is strongly recommended. See course description for LING 496 Internship in International Management.

**WORLD LANGUAGE MAJOR WITH MINOR IN SECONDARY EDUCATION**

The minor in Secondary Education leads to Initial Licensure for Teachers of Foreign Languages Grades 5-12. The Department requires that prior to student teaching, the students must have taken all of the education courses, LING 300 Romance Linguistics, and nine (9) of the advanced language courses required for the major.

For both academic and practical reasons, World Language majors with a concentration in French are encouraged to achieve proficiency in a second foreign language.

**1. General Education Requirements (11 courses)****2. Language major requirements:****Core Requirement (one course):**

LING	300	Romance Linguistics
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**Concentration in one of the following (11 courses):**

French  
World Languages

**3. Education Minor Requirements:**

EDUC	200	Education in American Society with Field Study I
EDUC	222	Sheltered English Immersion
EDUC	300	Professional Preparation II: Special Needs and Educational Technology
EDUC	318	Professional Preparation and Field Study II: Methods, Special Education, and Technology for World Languages, Grades 5-12 (2 Course-credits)
EDUC	421	Student Teaching Practicum and Seminar I: World Languages Grades 5-12 (2 Course-credits)
EDUC	422	Student Teaching Practicum and Seminar II: World Languages Grades 5 - 12 (2 Course-credits)
PSYC	200	Psychology of Development (Gen. Ed. Domain III-B)

*For further information on teacher education, see the Education Department section of the catalog.*

**MINORS****MINOR IN CHINESE (5 COURSES)**

A minimum of five (5) Chinese courses is required for the minor.

**MINOR IN FRENCH (5 COURSES)**

A minimum of five (5) French courses is required for the minor.

**MINOR IN SPANISH (5 COURSES)**

A minimum of five (5) Spanish courses is required for the minor.

**LATIN AMERICAN STUDIES MINOR**

Students interested in this program must apply to the Chairs of either the Geography, History, or World Languages Departments. To complete the minor, four (4) of the five (5) courses must be taken outside the student's major department. No course may fulfill both major and minor requirements, but courses in the minor may be used to fulfill general education requirements. **Note:** Modern Language majors must take at least two (2) additional approved courses, outside the major, and not listed above. Approval must be given by the Chair of the World Languages Department. No Latin American Studies minor will be awarded without compliance with the above format.

**The minor requires five (5) courses as follows:****Four (4) Required courses:**

GEOG	257	Geography of Latin America
HSTW	337	Caribbean History
SPAN	302	Advanced Spanish Composition and Conversation II
SPAN	334	Spanish-American Culture and Civilization

**One (1) Elective Course from the following:**

HSTA	314	United States Diplomatic History
SPAN	432	Contemporary Trends in Spanish-American Thought
SPAN	435	The Boom in Latin-American Literature

**MODERN LANGUAGE COURSES APPROPRIATE FOR GENERAL EDUCATION (GEN. ED.)**

<b>Course</b>			<b>Domain</b>
CHIN	118	Chinese Writing System and Calligraphy	I-B
CHIN	171	Elementary Chinese I	I-C
CHIN	172	Elementary Chinese II	I-C
CHIN	271	Intermediate Chinese I	I-C
CHIN	272	Intermediate Chinese II	I-C
FREN	101	Elementary French I	I-C
FREN	102	Elementary French II	I-C
FREN	201	Intermediate French I	I-C
FREN	202	Intermediate French II	I-C
LING	110	The Languages of the World	III-C
PORT	101	Elementary Portuguese I	I-C
PORT	102	Elementary Portuguese II	I-C
ASGN	121	American Sign Language I	I-C
SPAN	101	Elementary Spanish I	I-C
SPAN	102	Elementary Spanish II	I-C
SPAN	201	Intermediate Spanish I	I-C
SPAN	202	Intermediate Spanish II	I-C

**AMERICAN SIGN LANGUAGE COURSE DESCRIPTIONS****ASGN 101 American Sign Language I (Gen. Ed. Domain I-C)**

An introductory to language and culture designed to provide beginners with basic American sign language vocabulary and syntax and an appreciation to deaf culture and deaf history. Opportunities to interact with the deaf community are provided. Students give class presentations and complete a research paper by the end of the semester.

**ASGN 102 American Sign Language II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills and an appreciation of Deaf culture. Students continue to expand vocabulary and concepts acquired in ASGN 121 American Sign Language I. Expansion of conversational range includes talking about other people and activities, giving directions, and making requests. Students develop discourse skills appropriate for establishing connections with deaf acquaintances and handling a variety of interruptions. Through in-class discussions and demonstrations, videotapes, and course readings, students are exposed to elements of Deaf culture and the Deaf Community.

Prerequisite: ASGN 101 American Sign Language I or permission of the instructor.

**ASGN 221 American Sign Language/English Interpreting I**

Designed to develop the cognitive and analytical skills required in interpreting (listening for meaning, recall, prediction, closure); paraphrasing and restructuring practice; written, spoken, and signed translation; practice in shifting linguistic register; expansion of English vocabulary; introduction to theoretical models of the interpreting process. Historical foundations of the profession will be reviewed.

Prerequisite: Advanced American Sign Language II or equivalent skills as determined through assessment.

**ASGN 222 American Sign Language/English Interpreting II**

A study of theoretical models of the interpreting process as well as strategies in interpreting. It fosters development of skill in consecutive and simultaneous interpreting of narratives and dialogic texts. Students are exposed to strategies for interpreting for Deaf individuals with limited or no vision. Students also get practice in managing the logistics of a variety of environmental configurations.

Prerequisite: ASGN 221 American Sign Language: English Interpreting I.

**ASGN 301 Advanced American Sign Language III**

Designed to help students achieve superior levels of proficiency in expressive and receptive skills. Students gain practice in using advanced features of grammar, prosody and classifiers, as well as the vocabulary used in academic, professional, political and abstract discourse. Students learn to present on complex or abstract topics requiring lengthy, connected and detailed discourse. Exposure to a variety of American Sign Language users presenting on a range of topics and registers expands students' receptive skills.

Prerequisite: Advanced American Sign Language II or equivalent skills as determined through assessment.

**ASGN 302 Advanced American Sign Language IV**

A continuation of ASGN 301 Advanced American Sign Language III. It is designed to help students achieve a professional level of proficiency in expressive and receptive skills.

Prerequisite: ASGN 301 Advanced American Sign Language III.

**ASGN 313 American Sign Language/English Interpreting III**

A continuation of ASGN 312 American Sign Language: English Interpreting II. Students further their abilities in consecutive and simultaneous interpreting of expository and procedural texts, including academic texts and in interpreting for Deaf/Blind individuals. Students experience the dynamics of teamed assignments through reading and in-class application. Students continue to practice managing environmental logistics.

Prerequisite: ASGN 312 American Sign Language: English Interpreting II.

**ASGN 314 American Sign Language/English Interpreting IV**

Focused on interpreting in specialized settings, including K-12 classrooms, theatrical and musical performances, religious settings, and vocational rehabilitation settings. This course also covers: transliteration, working with a Deaf interpreter, video relay work, and sight translation of written documents.

Prerequisite: ASGN 313 American Sign Language: English Interpreting III.

**ASGN 430 Reading and Analysis of Research in Interpreting (0.5 course-credit)**

An orientation to peer-reviewed research in the field of interpreting and in related fields such as linguistics and communication. Students learn how to read research articles in order to understand the components of the research process and to be able to engage in a critical review of published research. Students also consider how findings from research are applied to professional practice. Skills developed include an ability to analyze and critique research methodology, data, and conclusions. Students submit a proposal for their own research to be conducted in ASGN 440 Undergraduate Research in Interpreting. This course is open to ASL/English Interpreting majors only.

Prerequisite: Completion of ASGN 222 American Sign Language/English Interpreting II with a minimum grade of C (2.00).

**ASGN 440 Undergraduate Research in Interpreting (0.5 course-credit)**

Designed to give students experience in conducting original research related to the fields of interpreting, linguistics, or communication. Students conduct a research project as approved in ASGN 4XX Reading and Analysis of Research in Interpreting. Skills developed include an ability to design sound research methodology, gather and interpret data, and determine significance of findings. Students submit a research report that conforms to accepted standards of writing for publishable research. This course is open to ASL/English Interpreting majors only.

Prerequisite: Completion of ASGN 430 Reading and Analysis of Research in Interpreting with a minimum grade of C (2.00).

**ASGN 451 Interpreting Practicum and Seminar I**

An observational practicum with an assigned practicum supervisor. Emphasis is on the Demand-Control Schema and professional ethics as a framework for observations. Fieldwork is augmented by a weekly seminar in which the interpreter's role and responsibilities, ethical standards, and models of interpreting are discussed. Issues of self-care are addressed.

Prerequisite: ASGN 212 Advanced American Sign Language IV and ASGN 314 American Sign Language: English Interpreting II.

**ASGN 452 Interpreting Practicum and Seminar II**

A practicum in which students continue to observe, but also provide interpreting under the supervision of professional interpreters; fieldwork is augmented by a weekly seminar. In addition to ethics and professional standards, the seminar addresses steps toward state and national credentialing, as well as business practices and continuing professional development.

Prerequisites: ASGN 313 American Sign Language: English Interpreting III and ASGN 451 American Sign Language English Interpreting Practicum and Seminar I.

**CHINESE COURSE DESCRIPTIONS****CHIN 101 Elementary Chinese I (Gen. Ed. Domain I-C)**

An integration of language and culture designed to provide beginners with basic functional language skills, both oral and written, and an appreciation of Chinese cultures.

**CHIN 102 Elementary Chinese II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills, both oral and written, and an appreciation of Chinese cultures. Prerequisite: Students must either complete CHIN 171 Elementary Chinese I or have the corresponding placement test score, or have prior approval of the instructor in order to enroll in this course.

**CHIN 118 Chinese Writing System and Calligraphy (Gen. Ed. Domain I-B)**

A survey of the Chinese writing system through analysis, interpretation, and practice for all majors. This course introduces the diachronic development of the Chinese writing system, from the oracle bone script, bronze script, seal scripts, to several modern scripts, and aims to stimulate students' imagination and appreciation of the characters. Readings and discussions focus on the basic principles on which characters are formed and the various styles that have evolved over time. Students gain hands-on experience by practicing calligraphy, and strengthen their awareness of characters as a medium of visual communication and calligraphy as a visual art. Note: Completion of or concurrent enrollment in CHIN 171 Elementary Chinese I is recommended.

**CHIN 201 Intermediate Chinese I (Gen. Ed. Domain I-C)**

A review of basic grammatical structures and characters and continued work toward building competency in Chinese language and culture. Additional characters are added to sharpen reading, writing, listening and speaking skills, with the aim of transferring knowledge gained from the character pattern approach at the elementary levels to work with authentic Chinese texts at the advanced level.

Prerequisite: CHIN 102 Elementary Chinese II or permission of instructor.



**CHIN 202 Intermediate Chinese II (Gen. Ed. Domain I-C)**

A continuation of the language and culture skill building beyond CHIN 271 Intermediate Chinese I for which vocabulary and character knowledge are expanded for the advancement of speaking and writing skills. Students work with simple authentic texts to further their knowledge of Chinese culture.

Prerequisite: CHIN 201 Intermediate Chinese I or permission of instructor.

**CHIN 203 Chinese Culture Through Film**

A survey of the Chinese society and culture presented in modern films. The selected films by directors from mainland China, Hong Kong, and Taiwan give students an overview of the features from historic times to the present. Topics include education, dynastic history, society, cuisine, religion, visual arts, performing arts, and cultural transformation. The course is conducted in English.

**CHIN 222 Chinese Literature in English Translation**

A survey of Chinese literature in English translation, including poetry, essays, fiction, and drama by significant writers. Students are expected to interpret and discuss works from different periods of Chinese literature, classical or modern, within their historical and social context. Topics may vary from semester to semester. The course is conducted in English.

**CHIN 246 Chinese Culture and Civilization in English Translation**

A survey of the history of Chinese culture and civilization. Topics include culture, society, cuisine, religion, visual arts, and performing arts, providing a broad understanding of the Chinese culture. The course is conducted in English.

**CHIN 300 Chinese Linguistics**

A study of essential linguistic features of the Chinese languages with a focus on Mandarin Chinese. Students engage in linguistic comparison and contrast between Chinese and English as well as among Chinese languages. Topics include a survey of current linguistic approaches and several core areas such as phonology, morphology, syntax, and pragmatics. Students gain a broad understanding of Chinese linguistics by the end of the course. The course also includes a component on language acquisition.

Prerequisite: CHIN 101 Elementary Chinese I or the equivalent placement test score, or or permission of instructor.

**CHIN 301 Advanced Chinese Composition & Conversation I**

A focus on proficiency building in speaking, listening, reading, and writing with particular attention given to expanding vocabulary in speaking and writing to build on prior competencies. Students also further develop cultural awareness through study of authentic texts. Conducted mainly in Chinese.

Prerequisite: CHIN 202 Intermediate Chinese II or permission of instructor.

**CHIN 302 Advanced Chinese Composition & Conversation II**

A further development of spoken and written language, including a review of pronunciation and grammar. Attention is given to the development of advanced reading and writing skills using authentic materials. Compositions and class discussions are based on topics of contemporary interest. Conducted in Chinese.

Prerequisite: CHIN 301 Advanced Chinese Composition and Conversation I, or permission of instructor.

**CHIN 326 Contemporary Trends in the Sinophone World**

An advanced course designed to introduce students to current trends in the Sinophone world, including China, Hong Kong, Taiwan, Malaysia, Singapore, and other parts of the world where Chinese is spoken. Topics include socio-economic issues, education, sports, environment, popular culture, and modern technology. Readings and media materials from both literary and non-literary sources are utilized. The class is conducted primarily in English with a Chinese language component. Topics vary from semester to semester.

Prerequisite: CHIN 101 Elementary Chinese I or permission of the instructor.

**CHIN 330 Business Chinese**

A practical application of specialized vocabulary, patterns, and styles applicable in a business setting. Students develop skills for oral and written communication, negotiation, and other professional applications of Chinese.

Prerequisite: CHIN 202 Intermediate Chinese II or permission of the instructor.

**CHIN 405 Chinese Language through Media**

A survey and critical analysis of current events presented in authentic Chinese-language print media, broadcast news, and online media produced in various countries. Topics include social, political, economic, legal, and environmental issues. Students are expected to actively participate in class and engage in vigorous discussion in Chinese.

Prerequisite: CHIN 202 Intermediate Chinese II or permission of the instructor.

**CHIN 438 Topics in Chinese Language and Literature**

An advanced survey of Chinese literature, including poetry, essays, fiction, and drama by significant writers. Students are expected to read, interpret and discuss texts written in modern Chinese or classical Chinese within cultural contexts. Topics may vary from semester to semester. Readings and discussion are in Chinese.

Prerequisite: CHIN 301 Advanced Chinese Composition & Conversation I or permission of the instructor.

**CHIN 450 Seminar in Chinese**

An advanced seminar on a topic – literary, linguistic, or cultural – directly related to Chinese or the Chinese-speaking world. Topics vary from semester to semester. Students are required to prepare several oral and written presentations in the seminar as well as a final written term report. Throughout the seminar, emphasis is placed on originality, creativity, and scholarship. The course is conducted in Chinese.

Prerequisite: CHIN 301 Advanced Chinese Composition & Conversation I or permission of the instructor.

**CHIN 490 Independent Study in Chinese**

An in-depth investigation of a topic in areas such as language, culture, linguistics, literature, or pedagogy, selected by the student under the guidance of a member of the World Languages Department. Regular meetings with the faculty advisor and a written report are required.

Prerequisites: Completion of two (2) Chinese courses at the 200-level or higher, and permission of the instructor.

**CHIN 495 Internship Practicum in Chinese**

A supervised practical experience which complements the course work of the student in a field study setting. The experience requires 140 on-site hours per credit, individual consultations with the advisor, and a research project. The internship counts as either one (1) or two (2) course-credits toward the major requirement, which may be taken during separate semesters.

Prerequisite: Admission to the internship is limited to World Languages majors with a minimum 3.00 GPA.

**FRENCH COURSE DESCRIPTIONS****FREN 101 Elementary French I (Gen. Ed. Domain I-C)**

An integration of language and culture designed to provide beginners with basic functional language skills and an appreciation of Francophone culture. **Note:** Students with previous experience in the language are encouraged to take the placement test before enrolling in FREN 101.

**FREN 102 Elementary French II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills and an appreciation of Francophone culture.

Prerequisite: Students must complete FREN 101 or have the corresponding placement test score or prior approval of instructor in order to enroll in FREN 102.

**FREN 201 Intermediate French I (Gen. Ed. Domain I-C)**

An intermediate French course in which students are trained to become independently functional in the French language and knowledgeable about Francophone culture and thought. Discussions, in French, are based on cultural readings, tapes, and films. The course also includes a comprehensive grammar review.

Prerequisite: FREN 102 Elementary French II or the equivalent placement test score or prior approval of instructor.

**FREN 202 Intermediate French II (Gen. Ed. Domain I-C)**

A continuation of intermediate French I. Students gain further training in order to become independently functional in the French language and knowledgeable about Francophone culture and thought. Discussions, in French, are based on cultural readings, tapes, and films. The course also includes a comprehensive grammar review.

Prerequisite: FREN 201 Intermediate French I or the equivalent placement test score or prior approval of instructor.

**FREN 300 Business French**

Practical study of the various types of French written communication involving the world of business, “la langue commerciale”, with the acquisition of its specialized vocabulary and translations from French to English and English to French. Facts concerning the French economy and the principal commercial and industrial exchanges throughout the Francophone world are studied.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 301 Advanced French Composition & Conversation I**

Designed to improve verbal fluency, listening comprehension, and written composition, with special attention to the finer points of grammar and elements of style. Classroom activities and assignments include small group improvisations, oral and written reports, and discussions on topics of contemporary French culture. Conducted in French.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 302 Advanced French Composition & Conversation II**

A further development of spoken and written language, including a review of pronunciation and grammar. Classroom activities and assignments include small group improvisations, oral and written reports, and discussions on topics of contemporary French culture. Conducted in French.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 306 Major French Writers I**

An introduction to French literature from the Middle Ages through the seventeenth century. This course is conducted in French.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 307 Major French Writers II**

An introduction to French literature from the eighteenth through the twentieth centuries. This course is conducted in French. Major French Writers I is not a prerequisite for the course.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 390 Special Topics in French Studies**

An upper-level seminar on a topic - literary, linguistic, or cultural - directly related to the French language or the French-speaking world. Topics vary from semester to semester and students may take the course for credit more than one time when the topics are different. Students are required to prepare several oral and written presentations for the course as well as a final research paper. Throughout the semester, emphasis is placed on originality, creativity and scholarship. Conducted in French.

Prerequisite: One 300-level French course, or permission of the instructor.

**FREN 452 French Intonation and Diction**

A review of phonetics and intense practice in the correct speech patterns of the foreign language. Training in aural comprehension, memorizations and dramatizations, prepared or impromptu reports or debates, are some of the class activities.

Prerequisite: FREN 201 Intermediate French I, equivalent placement exam score, or prior approval of the instructor.

**FREN 490 Independent Study in French**

An in-depth investigation into a topic in the areas of literature, culture, linguistics or pedagogy, selected by the student under the guidance of a member of the World Languages Department. Regular meetings with the faculty advisor are arranged. A written report is required. Limited to juniors and seniors.

Prerequisite: Advanced knowledge of French literature and culture. This course is not meant to be a replacement for major required courses.

**FREN 495 Internship Practicum in French**

A supervised practical experience which complements the course work of the student in a field study setting. The experience requires individual consultations with the advisor, and a research project. Admission to the internship is limited to seniors in World Languages and requires a 2.5 QPA. Offered on a quarter or full-semester basis, the internship counts as either one or two courses toward the major requirement, according to the number of hours devoted to the field experience.

**LINGUISTICS COURSE DESCRIPTIONS****LING 110 The Languages of the World (Gen. Ed. Domain III-C)**

A global perspective of the 5,000 or so languages spoken today. The course examines the fundamental structure of human language and the factors involved in language diversity. Major topics include: the internal organization of language, the genetic and structural relationships of the world's major languages, myths and misconceptions about language, the writing systems of the world, linguistic trends in multilingual societies, the effect of mass communication on world linguistic geography. Related topics include bilingualism, literacy, language planning, and language policies, with an emphasis on non-Western European languages and cultures.

**LING 200 Language and Linguistics**

An in-depth examination of essential linguistic features of languages. Major topics include phonology, morphology, syntax, and semantics, as well as areas such as language acquisition, language in society, and language and culture. Note: This course is required for all language majors.

**LING 300 Romance Linguistics**

A survey of the emergence and the evolution of the Romance languages from their immediate parent, Vulgar Latin, and an analysis of their current structure. The course examines the internal and external causes that brought about the various changes in pronunciation, word inflection, and word order, and presents contemporary data from which to apply methods of linguistic analysis. The course also includes a component on language acquisition.

**LING 495 Internship/Practicum in World Languages**

A supervised practical experience which complements the course work of the student in a field study setting. The experience requires individual consultations with the advisor and a research project. Admission to the internship is limited to seniors from the World Languages major and requires a 2.50 GPA. The internship counts as either one or two courses toward the major requirement, according to the number of hours devoted to the field experience.

**LING 496 Internship in International Management**

A semester of practical experience in an international business environment in this country or abroad, e.g., in a French or Spanish-speaking country. A written project is required. The students are advised and evaluated by members of the Modern Language and Economics departments. Admission to the internship is limited to seniors or second semester juniors and requires a 2.50 QPA. Students may earn up to 2 course credits applicable to the language minor and/or International Management Concentration, according to the number of hours devoted to the field experience. Credit will not be given for both LING 496 and LING 495.

Prerequisite: Approval of the department chairs.

**PORTUGUESE COURSE DESCRIPTIONS****PORT 101 Elementary Portuguese I (Gen. Ed. Domain I-C)**

An integration of language and culture designed to provide beginners with basic functional language skills and an appreciation of Brazilian and Portuguese cultures.

**PORT 102 Elementary Portuguese II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills and an appreciation of Brazilian and Portuguese cultures.

Prerequisite: Students must either complete PORT 101 or have the corresponding placement test score, or have prior approval of the instructor in order to enroll in this course.

## RUSSIAN COURSE DESCRIPTIONS

### **RUSS 101 Elementary Russian I (Gen. Ed. Domain I-C)**

An integration of language and culture designed to provide beginners with basic functional language skills and appreciation of Russian culture. *Note: Students with previous experience in the language are encouraged to take the placement test before enrolling in this course.*

### **RUSS 102 Elementary Russian II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills and appreciation of Russian culture.  
Prerequisite: RUSS 101 Elementary Russian I or permission of the instructor.

## SPANISH COURSE DESCRIPTIONS

### **SPAN 101 Elementary Spanish I (Gen. Ed. Domain I-C)**

An integration of language and culture designed to provide beginners with basic functional language skills and an appreciation of Hispanic cultures. **Note:** Students with previous experience in the language are encouraged to take the placement test before enrolling in SPAN 101.

### **SPAN 102 Elementary Spanish II (Gen. Ed. Domain I-C)**

A continuation of the study of language and culture designed to provide beginners with basic functional language skills and an appreciation of Hispanic cultures.  
Prerequisite: Students must complete SPAN 101 or have the corresponding placement test score or have prior approval of instructor in order to enroll in SPAN 102.

### **SPAN 201 Intermediate Spanish I (Gen. Ed. Domain I-C)**

An intermediate Spanish course in which students are trained to become independently functional in the Spanish language and knowledgeable about Hispanic cultures and thought. Discussions are in Spanish and based on cultural materials. The course also includes a comprehensive grammar review.  
Prerequisite: SPAN 102 Elementary Spanish I or the equivalent placement test score or prior approval of instructor.

### **SPAN 202 Intermediate Spanish II (Gen. Ed. Domain I-C)**

A continuation of Intermediate Spanish I. Students gain further training in order to become independently functional in the Spanish language and knowledgeable about Hispanic cultures and thought. Discussions are in Spanish and based on cultural materials. The course also includes a comprehensive grammar review.  
Prerequisite: SPAN 201 Intermediate Spanish I or the equivalent placement test score or prior approval of instructor.

### **SPAN 210 Cinema for Spanish Conversation (Gen. Ed. Domain I-C)**

An intermediate conversation course designed to develop fluency and accuracy of comprehension, speaking, and writing through film and cultural analysis. Students explore several aspects of life and culture in the Spanish-speaking world and the United States including identity, history, politics, class issues, gender roles, regional language, and arts. Students improve their Spanish conversational skills and Spanish vocabulary through the discussion of Spanish-language films. Class conducted in Spanish.  
Corequisite: SPAN 202 Intermediate Spanish II or permission of the instructor.

### **SPAN 320 Introduction to the Analysis of Hispanic Texts**

An intermediate step between language-oriented courses and those dealing more exclusively with literature. In this course, students develop techniques for reading and interpreting Hispanic literary texts, including fictional narrative, drama, and lyric poetry. The course focuses on the consolidation of reading skills with an emphasis on acquisition of critical vocabulary and approaches to contemporary works from Spain and Latin America. Classes are conducted in Spanish.  
Prerequisite: SPAN 202 Intermediate Spanish II or permission of instructor.

**SPAN 331 Advanced Spanish Composition & Conversation I**

A continuation in the development of spoken and written language, including a review of pronunciation and grammar. Attention is given to the finer points of grammar. Compositions and class discussions are based on Hispanic themes and on topics of contemporary interest.

Prerequisite: SPAN 202 Intermediate Spanish II, equivalent placement test score, or prior approval of the instructor.

**SPAN 332 Advanced Spanish Composition & Conversation II**

A further development of spoken and written language, including a review of pronunciation and grammar. Attention is given to the finer points of grammar. Compositions and class discussions are based on Hispanic themes and on topics of contemporary interest.

Prerequisite: SPAN 202 Intermediate Spanish II, equivalent placement test score, or prior approval of the instructor.

**SPAN 334 Spanish American Culture and Civilization**

A survey of Spanish-American civilizations, studied chronologically from the pre-Columbian Maya, Aztec and Inca civilizations to the twentieth century, with emphasis on the Spanish conquest, the colonial period and the wars of independence. The predominant cultural currents and artistic developments are studied. Conducted in Spanish.

Prerequisite: SPAN 331 Advanced Spanish Composition & Conversation I or SPAN 332 Advanced Spanish Composition & Conversation II, or prior approval of the instructor.

**SPAN 335 Major Hispanic Writers I**

An historical and literary survey of peninsular and Latin American texts, focusing on works written during the evolution of the Spanish language in the Middle Ages through the colonial chronicles of the seventeenth century. Instruction and discussions are in Spanish.

Prerequisite: SPAN 331 Advanced Spanish Composition & Conversation I or SPAN 332 Advanced Spanish Composition & Conversation II, or prior approval of the instructor.

**SPAN 336 Major Hispanic Writers II**

An historical and literary survey of Spanish language texts of eighteenth, nineteenth, and twentieth-century Spain and Latin America. Focus is on the literary periods of romanticism, realism/naturalism, and modernism. Instruction and discussions are in Spanish.

Prerequisite: SPAN 331 Advanced Spanish Composition & Conversation I or SPAN 332 Advanced Spanish Composition & Conversation II, or prior approval of the instructor.

**SPAN 343 The Latin American Short Story: Love, Death, and Humor**

An analytical study of selected Latin American short stories of the 19th and 20th centuries, with attention to the evolution of their forms and ideas within specific historical and social contexts. Classes are conducted in Spanish.

Prerequisite: SPAN 202 Intermediate Spanish II or permission of instructor.

**SPAN 345 Tales of Mystery from Latin American**

A close reading and analysis of selected Latin American mystery stories of the nineteenth and twentieth centuries. This course is designed for students to build vocabulary and gain practice in written expression. Readings and discussions are in Spanish.

Prerequisite: SPAN 202 Intermediate Spanish II or equivalent; or prior approval of instructor.

**SPAN 431 Contemporary Trends in Spain**

An advanced course designed to introduce students to philosophical and cultural concepts held in contemporary Spain. To this end, readings from both literary and non-literary sources are utilized with frequent reports, both oral and written, required in order to encourage the student to relate theory to practice.

Prerequisite: SPAN 331 Advanced Spanish Composition & Conversation I or SPAN 332 Advanced Spanish Composition & Conversation II, and one other 300- or 400-level Spanish course; or prior approval of the instructor.

**SPAN 432 Contemporary Trends in Spanish-American Thought**

An advanced course designed to introduce students to philosophical concepts often held by the Latin American residing both within and outside the United States. Due to greater cultural contact with the United States, emphasis is placed on Puerto Rican, Cuban and Mexican views. While readings are assigned from literary and nonliterary sources, the thrust of the course is practical, with frequent reports, both oral and written. Conducted in Spanish. Readings in both English and Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and two other 300- or 400-level Spanish courses; or prior approval of the instructor.

**SPAN 435 The Boom in Latin American Literature**

Selected readings in the literature of such noted Latin American authors as Borges, Donoso, Garcia Marquez, and Fuentes. Conducted in Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and two other 300- or 400-level Spanish courses; or prior approval of the instructor.

**SPAN 436 Cervantes**

Readings and discussion of Cervantes' works with special emphasis on his masterpiece, Don Quixote. Conducted in Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and two other 300- or 400-level Spanish courses; or prior approval of the instructor.

**SPAN 437 Spanish Theatre and Poetry of the Twentieth Century**

A critical study of the main trends of Spanish theater and poetry of the twentieth century. Conducted in Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and two other 300- or 400-level Spanish courses; or prior approval of the instructor.

**SPAN 443 Spanish American Film**

A study of Latin American and Caribbean cinema. The focus is on films that represent cultural values and issues in contemporary Latin American societies. Students learn to recognize cinematographic styles and techniques, as well as the differences among the cultures that are studied. Particular attention is paid to the themes of ethnicity, class, gender, sexual orientation, and politics. When appropriate, corresponding literary texts will be examined. Film viewing, class discussion, related readings and assignments are in Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and one other 300- or 400-level Spanish course; or prior approval of the instructor.

**SPAN 445 Tales of the Fantastic from the Southern Cone**

Selected twentieth-century short stories and novellas from Argentina and Uruguay, which focus on the scientific and psychological construction of alternate realities, are studied in their relation to the poetics of the fantastic. Classes are conducted in Spanish.

Prerequisites: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II and one other 300- or 400-level Spanish course; or prior approval of the instructor.

**SPAN 446 Testimonial Literature of the Dirty War**

A study of the legacy of State Terrorism, in which works written by the survivors of the concentration camps in Argentina twenty years after the end of the Dirty War (1974-1983) constitute the primary focus of the coursework. Readings of a variety of genres, and course instruction are in Spanish.

Prerequisite: SPAN 331 Advanced Spanish Composition and Conversation I or equivalent, or prior approval of the instructor.

**SPAN 448 Controversial Cinema in Latin America**

A study of "new wave" Latin American cinema. The focus of the course is on films that deal with controversial topics such as female violence, torture, the drug trade, sexuality issues and alternative families in contemporary Latin American societies. When appropriate, corresponding literary texts are examined. Film viewing, class discussions, related readings and assignments are in Spanish.

Prerequisite: SPAN 331 Advanced Spanish Composition and Conversation I or SPAN 332 Advanced Spanish Composition and Conversation II, or equivalent, or prior approval of the instructor.

**SPAN 462 Spanish Intonation and Diction**

A review of phonetics and intense practice in the correct speech patterns of the foreign language. Training in aural comprehension, memorizations and dramatizations, prepared or impromptu reports or debates, are some of the class activities.

Prerequisite: SPAN 202 Intermediate Spanish II.

**SPAN 463 Seminar in Spanish**

An advanced seminar on a topic - literary, linguistic, or cultural - directly related to Spanish or the Spanish-speaking world. Topics vary from semester to semester. Students are required to prepare several oral and written presentations to the seminar as well as a final written term report. Throughout the seminar, the emphasis is placed on originality, creativity, and scholarship. Conducted in Spanish.

Prerequisite: Open to junior and senior Modern Language majors who have completed at least 6 courses at the 300 level or higher, and to others with permission of the instructor.

**SPAN 490 Independent Study in Spanish**

An in-depth investigation of a topic in the areas of literature, culture, linguistics or pedagogy, selected by the student under the guidance of a member of the World Languages Department. Regular meetings with the faculty advisor are to be arranged. A written report is required. **Note:** Limited to juniors and seniors.

Prerequisite: Advanced knowledge of Spanish literature and culture. This course is not meant to be a replacement for major required courses.

**SPAN 495 Internship Practicum in Spanish**

A supervised practical experience which complements the course work of the student in a field study setting. The experience requires individual consultations with the advisor, and a research project. Admission to the internship is limited to seniors in World Languages and requires a 2.50 GPA. Offered on a quarter or full-semester basis, the internship counts as either one or two courses toward the major requirement, according to the number of hours devoted to the field experience.



# Administration

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B.A. Siena Heights University, M.Ed., Grand Valley State University

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- Horn, Katherine**, B.A., Washington University; M.A., Ph.D., Tufts University, Assistant Professor, English
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English Professor, Emerita*

**Weller, Paul F.**

*President, Emeritus*

**Boyd, Lawrence**

*Director of Athletics, Emeritus*

**Calapa, Joseph**

*Director of Financial Services, Emeritus*

**Dooher, Philip M.**

*Vice President for Enrollment Management, Emeritus*

**Flinter, Martha**

*Director of International/Study Abroad Programs, Emerita*

**Forrest, Cynthia Smith**

*Dean of Student Services, Emerita*

**Good, Arnold**

*Associate Dean, Graduate and Continuing Education, Emeritus*

**Gordon, Joy**

*Staff Associate, Museum Director, Emerita*

**Griffin, Raymond**

*Director of McAuliffe Center, Emeritus*

**Irwin, L. William**

*Assistant Dean, Continuing Education, Emeritus*

**Koroski, Walter**

*Director of Media Communications, Emeritus*

**Lopes, Joseph**

*Director of Human Resources, Emeritus*

**Margulies-Ellias, Marie**

*Director of Counseling Center, Emerita*

**Marsh, Robert**

*Assistant to the President, Emeritus*

**Noyes, Wendy**

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**Roe Bergeron, Carol**

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**Storch, Margaret**

*University Advancement, Emerita*

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**Anderson, Thomas**

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**Anes, Jean**

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**Beck, Charles**

*Education  
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**Beck, Robert**

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**Beck, Sachiko**

*Art  
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**Beyer, Kathleen**

*English  
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**Birmingham, Doris A.**

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*Education  
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**Budz, John C.**

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**Buydoso, Cathleen**

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*Biology  
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**Eng, James**

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# Campus Buildings and Facilities

**Athletic and Recreation Center**, opened in 2001, houses a gymnasium, locker rooms, athletic training rooms and offices, the bookstore, and an aerobics fitness center. The facility sponsors classes in conditioning, yoga, spinning, and nutrition, as well as a personal training program.

**Crocker Hall** is named for Lucretia Crocker, an outstanding teacher and the first woman to be appointed supervisor in the Boston schools. It is currently used for faculty offices.

**Arthur M. Doyle Information Technology Center**, named for the late Vice President for Academic Affairs, is located adjacent to Whittemore Library and houses the offices of Information Technology Services.

**Dwight Hall**, named for industrialist Edmund Dwight of Boston, who provided funds for Horace Mann to start the Normal Schools of Massachusetts, houses classrooms, main administrative offices, and an auditorium.

**Foster Hall** is named for Dr. Stuart Foster, former Chair of the Chemistry Department and Professor Emeritus. The building serves as the Health & Wellness Center and houses Health Services.

**Helen L. Heineman Center**, built in 1871, was purchased by the institution in 1970 and used as a chapel for all faiths and as a classroom. Renovated in 2000, the facility also now serves as the site for special campus events.

**Corinne Hall Towers**, a four-house residence complex, accommodates students in 32 suites of 13 students per suite. It is named in honor of Corinne Hall, a former home economics teacher at the institution. The residence opened in September 1973.

**Hemenway Hall**, named for Mary Hemenway, who was largely responsible for the development of the consumer sciences division of the institution, houses the departments of Biology, Chemistry & Food Science, Computer Science, Consumer Sciences, Geography, Mathematics, Nursing, Physics & Earth Sciences. It is also home to the student computer lab, the Planetarium, the Food Pilot Plant Laboratory and other science laboratories along with general purpose classrooms including three amphitheaters.

**Horace Mann Hall** is a coed residence housing juniors and seniors in single rooms. It is named for the famous educator who was the founder of the Commonwealth's first teacher training institution.

**Larned Hall** is named for Dorothy Larned, who served as the Dean of Women from 1942 to 1961. The six-story residence hall provides living and study facilities for men and women. The ground floor contains a large recreation room with lounge, kitchenette, and meeting rooms for educational and social functions. Other floors contain living quarters, together with study and utility areas. Situated atop Bare Hill, the residence hall is surrounded by an exterior plaza providing an overall view of the campus.

**Linsley Hall**, named for the late Professor James D. Linsley of the History Department, is a residence for 185 students.

**May Hall**, is named for Abby May, the Official Visitor to the Framingham Normal School for the Massachusetts Board of Education. In her reports to the legislature, she advocated for this classroom-administrative building which opened in 1889, the year after her death. It was completely renovated in 1982 and houses the departments of Art, English, History, and Political Science.

**D. Justin McCarthy Campus Center**, named in honor of Dr. McCarthy, President of the University from 1961 to 1985, houses all segments of student activities. Since the building's opening in 1976, The D. Justin McCarthy Center has been the hub of all of the University student activities. In May 2005, the McCarthy Center main entrance was redesigned and all interior spaces have undergone extensive renovations. The McCarthy Campus Center contains the Office of the Dean of Students along with various Student Affairs offices; the Student Services Center (SSC) comprised of the offices of Financial Aid, Student Accounts, and University Registrar; the Office of University Police; the Mazmanian Art Gallery; the Dining Commons; a Cyber Café; a student game room, classrooms; and other meeting rooms.

**North Hall**, opened fall 2011, is coed residence housing approximately 400 sophomores, juniors, and seniors in four-person suites or in connected doubles and singles sharing semi-private bathroom facilities.

**O'Connor Hall**, named for Martin F. O'Connor, who served as President from 1936 to 1961, was a residence until Fall 2016. O'Connor Hall now serves as the of several academic departments along with various administration offices. It is also the home of the Christa Corrigan McAuliffe Center for Education and Teaching Excellence and the Challenger Learning Center.

**Peirce Hall**, named for Cyrus Peirce, who was the first President of the University, is a residence for 102 women students. South Peirce houses academic administrators' offices and the Center for Academic Success and Achievement.

**West Hall**, opened Fall 2016, is coed residence housing approximately 400 sophomores, juniors, and seniors in four-person suites or in connected doubles and singles sharing semi-private bathroom facilities.

**Henry Whittemore Library**, named for the President of the institution who served from 1898 to 1917, is a seven-level structure completed in 1969. Its collections presently include approximately 200,000 book volumes, and access to over 70,000 electronic journals. An on-line public catalog combines the holdings of the Library and the Minuteman Library Network. These resources are supplemented by on-line computer systems for information retrieval, including Internet access to data-bases world-wide. Curriculum Library, Archives, and Special Collections rooms contain many materials unique to the University. Classrooms, the Emeritus Room, the Copy Center, along with the departments of Communication Arts and Modern Languages are also located in the building.

## The Christa Corrigan McAuliffe Center for Education and Excellence

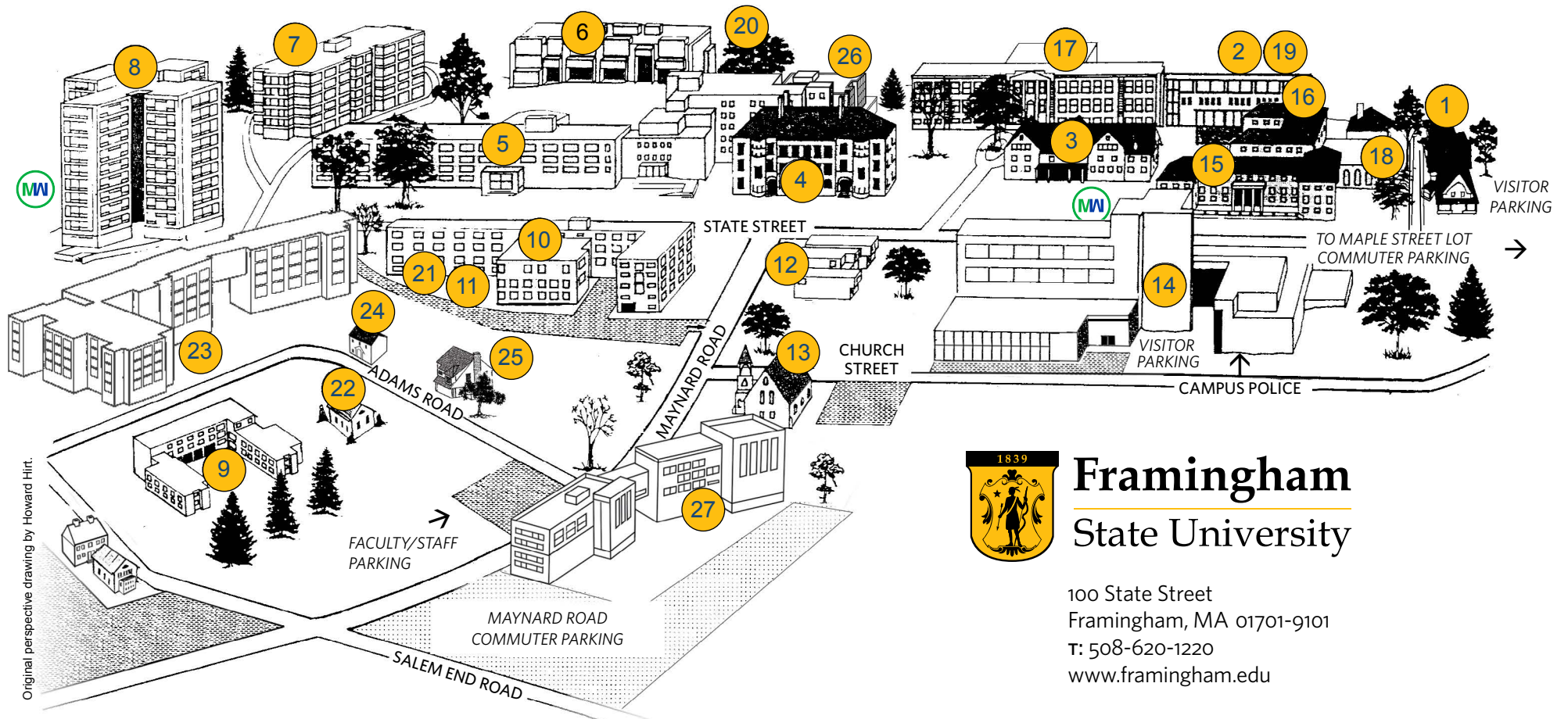
As teacher, Mission Specialist, and Framingham State University alumna, Christa Corrigan McAuliffe has inspired both students and educators for nearly two decades. The McAuliffe Center was established to honor her commitment to education by providing exciting, standards-based programs in the pursuit of excellence. The Challenger Learning Center is the McAuliffe Center's best-known program. In full-size mockups of both Houston's Mission Control and a space station interior, middle-school students apply the principles of physical science to the real-time challenges of a simulated space flight.

Just up the hill in the middle of the campus is the Framingham State University Planetarium. The thirty-foot dome brings the majesty of the universe down to Earth, with original programming from the McAuliffe Center that combines state-of-the-art technology with current educational philosophy.

In partnership with the Science Education Department of the Harvard-Smithsonian Center for Astrophysics, the McAuliffe Center brings the ARIES hands-on astronomy curriculum to teachers across the United States.

The McAuliffe Center's relationship with NASA gives teachers throughout New England access to the agencies numerous space-related programs, including Mission Mathematics and Liftoff to Learning. Building a Presence for Science, a National Science Teachers Association program in which more than 150 Massachusetts science teachers facilitate the integration of science education standards into classrooms statewide, is yet another example of the Center's collaborative efforts. The McAuliffe Center is located on the FSU campus in O'Connor Hall. Call 508-626-4050, or visit the website at [www.christa.org](http://www.christa.org), for more information.

Framingham State University has established the Christa Corrigan McAuliffe Scholarship Program to attract, recognize, and encourage exceptionally talented students who wish to study at Framingham State University. Successful applicants are awarded \$1,000 toward full-time study. The scholarship may be renewed for up to four years of study at the University. All prospective first-year students, new transfer students, or continuing full-time undergraduate students enrolled at the University may apply for the scholarship.



Original perspective drawing by Howard Hirt.



# Framingham State University

100 State Street  
Framingham, MA 01701-9101  
T: 508-620-1220  
[www.framingham.edu](http://www.framingham.edu)

- |   |  |
|---|--|
| 1 - Admissions Welcome Center               | 14 - D. Justin McCarthy Center                     |
| 2 - Bookstore                               | 15 - Horace Mann Hall                              |
| 3 - Crocker Hall                            | 16 - Peirce Hall                                   |
| 4 - May Hall                                | 17 - Dwight Hall/Performing Arts Center            |
| 5 - Hemenway Hall                           | 18 - CASA  |
| 6 - Whittemore Library                      | 19 - Athletic/Recreation Center                    |
| 7 - Larned Hall                             | 20 - Arthur M. Doyle Information Technology Center |
| 8 - Corinne Hall Towers                     | 21 - Planetarium                                   |
| 9 - Linsley Hall                            | 22 - Development & Alumni Relations                |
| 10 - O'Connor Hall                          | 23 - North Hall                                    |
| 11 - McAuliffe Center/<br>Challenger Center | 24 - Honors Program                                |
| 12 - Health & Wellness Ctr. - Foster Hall   | 25 - Alumni House                                  |
| 13 - Heineman Ecumenical & Cultural Center  | 26 - Hemenway Laboratories                         |
|   | 27 - West Hall (Under construction)                |

Designates different MWRTA bus stops

## DIRECTIONS TO OUR CAMPUS

### From I-90 (Massachusetts Turnpike):

Take Exit 12, follow Rt. 9 East two miles to the Edgell Rd.-Main St., Framingham exit. Take your first right onto State Street and the Framingham State University campus.

### From I-95 (Route 128):

Take Exit 25 to the Massachusetts Turnpike (I-90) West, and follow the directions above.

### From Route 495:

Take Exit 22 to Massachusetts Turnpike (I-90) East, and follow the directions above.

## VISITOR PARKING

Limited visitor parking is available at the Admissions Welcome Center. Additional parking is available behind the McCarthy Center and in any of the Commuter Parking Lots.